



Graduate School of Education

The Use of Social Networking Sites (SNSs) to Promote Personal Learning by Saudi Arabian University Students

Submitted by

Hind Rasheed S Alqirnas

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Abstract

In recent years, there have been increasing demands for the use of digital technology, especially social networking sites, in higher education around the world to enhance students' learning at university. This study was carried out to explore the use of SNSs by female Hail University students in Saudi Arabia to promote personal learning. It investigated the factors that influence their use of these sites to promote their personal learning. Self-directed learning theory, affordance theory, identity and agency concepts were adopted to understand the issue under investigation.

The study was conducted under the umbrella of the interpretive philosophical stance in order to investigate the issue in depth. Case study was adopted as the research methodology using the Self-Directed Learning (SDL) closed-ended questionnaire (522 participants), semi-structured interviews (27 participants) and text diaries (10 participants) to collect both quantitative and qualitative data. The sample of the three instruments consisted of students from both scientific and social sciences colleges.

The study revealed several important findings related to the use of SNSs among Saudi university students for personal learning. Four significant outcomes were highlighted. The first was that the students' sense of agency and what the students thought about their own, as against their lecturers', responsibilities in their learning played a major role in their personal learning and in their relationship with their lecturers in the learning context. Secondly, the students' recognition of the technical and educational affordances of these social networks was another important element that formed their relationship with this technology and the way they used it for personal learning. Thirdly, the skills of using social networks and the strategy they followed in order to perform personal learning was an important element that influenced their use of these sites for personal learning. As this study focused on Saudi Arabian female students, who are part of a unique conservative community, the importance of cultural aspects in influencing the students' perceptions and performance of personal learning through social networks was the fourth significant outcome highlighted.

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1 Introduction

This chapter discusses the reasons for carrying out the study and explains its aims. It also provides a concise explanation of the study's theoretical framework and the research questions, in addition to the significance of the research. Furthermore, it gives an overall view of the research design, followed by the possible contributions of the study. At the end of the chapter, an outline of the thesis structure and its chapters is presented in more detail.

1.1 Rationale of the study

As a result of the evolution of information and communication technologies (ICTs), Social Network Sites (SNSs) have appeared and become an important channel for communication between people. They are seen as effective tools of communication that help to share knowledge, ideas and experiences (Buzzetto-More, 2012; Singh & Gill, 2015). They have also become one of the most popular means of communication between university students, because these sites can help them to improve their learning opportunities (Coiro, Knobel, Lankshear & Leu, 2008). SNSs, such as Facebook, Twitter and others, are argued to give students the chance to connect with others who have the same interests to collaborate and share contents for educational purposes. Consequently, academic institutions have realized the importance of these sites and they have created official accounts that introduce the benefits of these sites to their students and facilitate the communication process. Therefore, there are increasing demands for the use of digital technology, especially social networking sites, in higher education around the world to enhance students' learning and to provide them with greater opportunities to improve their study at university.

Although SNSs are reported to be used extensively around the world, and particularly in Saudi Arabia, as shown in the literature review chapter later, it is still not clear whether or not they are used effectively among university students for academic purposes. It is also not clear what factors could influence their adoption of these sites to promote their personal learning. Moreover, according to a study I conducted earlier (Alqirnas, 2014), students of science colleges (such as Medicine College) seem to use it for academic purposes more than their colleagues in the Colleges of Humanities and Social Science. However, the reasons behind this difference between the students is unclear and needs to be discovered.

1.2 Theoretical framework

As the aim of the current study is to investigate the use of SNSs to promote personal learning by Saudi Arabian university students and the factors that influence their use of SNSs for personal learning. Self-Directed Learning theory (SDL) is adopted as the main theoretical framework of the study in order to have a comprehensive insight into the issue under investigation. SDL theory allows me to explore the students' perceptions about the use of SNSs for personal learning and to discover how the learning process and the contextual and personal factors influence, and are influenced by, the students' perceptions. It also contributes to the existing literature about the university students' use of SNSs for personal learning. Within SDL theory, affordance theory, identity and agency concepts are also involved and help to give a clearer picture of the students' relationships with others on these sites and how these promote personal learning. I argue that many aspects related to the study are revealed and interpreted through these theoretical concepts, and that they contribute to

existing knowledge related to the university students' use of SNSs for personal learning. These theoretical concepts allow me to investigate university students' different perspectives on the use of SNSs for personal learning, the contextual factors that influence their use of these sites for personal learning, and how they perceive their agency during the learning process. Their perceived agency could lead to their developing different identities. The sense of agency and identity concepts are used to discover the university students' beliefs about their responsibilities for their own learning, and their perceptions of their own responsibilities as against their lecturers' responsibilities for their learning. Affordance theory has also been adopted as it can help me to seek university students' understanding about SNSs' affordances and their recognition of these affordances in relation to their sense of agency, which can be influenced by the learning context and their personal learning strategies. I believe that integrating these theoretical concepts (SDL theory, affordance, agency and identity) together provides me with a great chance to understand the issue clearly and attain valuable knowledge.

1.3 Significance of the research

The significance of the current study emerges from the expected findings which could contribute to knowledge by providing information to support the design of higher education programmes at Saudi universities. It could also provide policy-makers in Saudi Arabia and professional contributors in social network sites with a clearer view and understanding of the students' use of these sites for personal learning. In addition, it could promote the development of universities' programmes by providing them with the actual needs of their students regarding online materials and resources.

1.4 Research questions

The study seeks to answer the following research questions:

- 1- What are Hail university female students' perceptions of personal learning?
- 2- What are Hail university female students' perceptions of the use of social network sites (SNS) for personal learning?
- 3- What are the relationships between Self Directed Learning (SDL) elements and the students' use of SNSs for personal learning?
 - How do the students' perceptions influence their SDL activities?
 - What is the relationship between the students' learning process and their use of SNSs for personal learning?
 - How do contextual and cultural factors influence the students' personal learning?

1.5 Overview of methodology of the research

The purpose of the current study is to investigate the use of SNSs to promote personal learning by Hail University students and identify the key factors that influence their use of these sites for personal learning. Within the SDL theory and its elements (personal factors, contextual factors and learning process), university students' identity development, their perceptions of their responsibilities and their recognition of SNSs' affordances are examined to explore in depth their use of SNSs for personal learning and to gain insight into their perceptions about the issue.

A case study approach is adopted as the methodology for this study in order to answer the research questions. I adopted a case study because it could provide me with the opportunity to find out about the case under investigation using multiple research methods so as to allow the collection of a variety of types of data about the issue. SDL questionnaire, interviews and text diaries were used

to collect quantitative and qualitative data about the university students' use of SNSs for personal learning, how personal and contextual factors influence their use of SNSs to promote personal learning, and what learning processes university students perform to promote their personal learning. The questionnaire was used as a first phase of data collection that provides quantitative data from a large sample, provides background information about the use of SNSs for personal learning, and prepares the way for the interview phase and text diaries phase, which are the main phases, to explore the issue in more depth. Twenty-seven of the questionnaire participants were included in the interviews and six of the interview participants were asked to keep diaries. The participants of this study were Hail University female students from both arts and humanities fields and science fields. The data collected in this study led to important findings related to the use of SNSs for personal learning which are presented in Chapter Five and Chapter Six. The main themes emerging from the data analysis are discussed and interpreted in the discussion chapter.

As interviews and text diaries are seen as the main phase of the data collection, inductive thematic analysis is adopted in this study in order to analyse the data qualitatively. In inductive approaches, the data is coded openly, without the restraints imposed by structured methodologies, and gives a chance to avoid the limitations of theoretical thematic analysis (Braun & Clarke, 2006). It does not mean that the factors of SDL theory (personal factors, learning process and contextual factors) were ignored during the data analysis. They were kept in mind when analysing the data so as to contribute to revealing and interpreting the findings which emerged from the inductive thematic analysis under a theoretical lens, as shown in the discussion chapter. Detailed information about

the research methodology and its methods are presented and discussed in Chapter Four.

1.6 Contribution to knowledge

This study contributes theoretically and practically regarding the students' use of SNSs to promote their personal learning. I believe that these contributions inform not only university students, but also lecturers, policy makers, peers and the online community, in order to improve the students' use of SNSs to promote effective personal learning. In the light of the findings and discussion, the study aims to provide insight into the students' identity and agency development and how this influences their relationships with others in the learning context and their personal learning strategies. Detailed information about the research contributions are discussed in the Discussion and Conclusion chapters.

1.7 Structure of the thesis

This thesis consists of eight chapters, as follows:

Chapter One: Introduction

The Introduction provides an overview of the study, which include its rationale, theoretical framework, significance, research questions and methodology. It also presents the contributions to knowledge that the study aims to achieve and gives an outline of the structure of the thesis and its chapters.

Chapter Two: The study context

This chapter describes the study context and its characteristics in order to give the reader a clear picture of the context where the study took place. The aim of this chapter is to provide information about Saudi Arabia, its population, culture,

higher education system and the use of technology, particularly SNSs, in its universities.

Chapter Three: Literature review

Literature related to the study is reviewed in this chapter. It reviews literature related to information and communication technology (ICT) in higher education, E-learning in higher education, Web 2.0 and its tools and personal learning environments (PLE) and Social Networking Sites (SNSs) to show the gap that this study needs to cover. Also, the theoretical framework of the study is presented in this chapter. It reviews literature related to Self-Directed Learning theory, affordance theory and identity and agency theoretical concepts and explains how these theories inform the study.

Chapter Four: Methodology

This chapter focuses on the research methodology and the design adopted by this study. In this chapter, the research paradigm and methodology are discussed. It also presents descriptions of sampling, research methods, ethical issues and the procedure of data collection. In addition, the data analysis process is discussed in detail in this chapter. The end of the methodology chapter presents the research trustworthiness and how the quality of the study is maintained.

Chapter Five: Quantitative findings

Quantitative data findings are presented and discussed in this chapter according to the Self-Directed Learning (SDL) questionnaire. It presents findings related to the use of SNSs by university students, the reasons for using SNSs among students, skills and accessibility, and comparisons between groups of students by study subject and year of study.

Chapter Six: Qualitative findings

This chapter presents the qualitative findings related to the students' perceptions of personal learning, students' sense of agency and their expectations of others, students' use of social networking sites and the affordances of these sites for personal learning, strategies students adopt when using these sites, challenges that students face, and cultural factors related to the use of SNSs for personal learning.

Chapter Seven: Discussion

The research questions of the study are answered in this chapter on the basis of the findings that emerged from both the quantitative and qualitative data analysis presented in Chapters Five and Six. This chapter discusses and interprets the main findings in light of the literature and the study's theoretical framework.

Chapter Eight: Conclusion

This chapter concludes the study by presenting summary and key findings, discussing the study's contribution to knowledge both theoretical and practical, as well as the implications for the study. It also presents the study's limitations and gives justifications for these limitations. It concludes by presenting suggestions for further research and my personal reflection on this study.

2 Context of the study

2.1 Introduction

The current study explores the use of SNSs by Hail University female students to promote personal learning. As “there is a strong link between culture and learning that is reflected in how people prefer to learn and how they tend to process information” (Samovar, Porter & McDaniel, 2009, cited in Alebaikan, 2010, p.15), it is important to give background information about the context of the study and its characteristics so as to offer the reader an overview of the context that contributed to shaping the study. Therefore, the aim of this chapter is to present general information about the study context including the country and people of Saudi Arabia, its culture and religion, educational system, E-learning and social networking sites in higher education.

2.2 The Country and People of Saudi Arabia



Figure 2-1: Map of the KSA (Source: <https://www.google.co.uk/maps/>)

The Kingdom of Saudi Arabia (KSA) is the largest country of the Arabian Peninsula states, bounded on the north by Iraq, Jordan, and Kuwait, on the east by the United Arab Emirates, Qatar and the Arabian Gulf, on the south by the Sultanate of Oman and Yemen and on the west by the Red Sea. The kingdom is located in the northern hemisphere and occupies a strategic location between the three continents: Asia, Africa, and Europe. It is the largest country in the region and the third largest country in Asia after China and India, reaching approximately 2,250,000 square kilometers (868,730 square miles).

It is a monarchy headed by King Salman bin Abdulaziz, Custodian of the Two Holy Mosques. Riyadh City is the capital of Saudi Arabia. The kingdom involves thirteen administrative Emirates, and each Emirate has a number of governorates. The system of government is based on *Shura*, which is the council in Saudi Arabia that is similar to the duties of the British parliament. Even though many people speak and understand the English language, the official language is Arabic. The Kingdom is home to many civilizations and is the birthplace of Islam (The Ministry of Culture & Information 2006).

The Kingdom of Saudi Arabia was turned from an undeveloped nomadic country to a modern country within a short time by the discovery of oil. It has the second largest oil reserve in the world and is first in its production and export. The 1974 census stated that the kingdom's population was about 7 million. Because of a high birth rate, the population of Saudi Arabia has increased dramatically and reached 16.9 million in 1992. In the end of 2000, the Central Department of Statistics' Demographic Survey estimated that the population of the kingdom was over 20 million. According to the latest census in 2016, the population of Saudi Arabia was just over 27 million.

2.3 Culture and Religion

The Kingdom of Saudi Arabia is based on the Holy Book (the Quran) and Shariah Law. According to Mazawi (1999 cited in Alnesyan, 2012), there is a strong relationship between religion and culture in social life in the Middle East, particularly in Saudi society. In Saudi Arabia, all aspects of cultural life are entirely influenced by Islamic religion and its identity. In fact, education is seen as one of the aspects of life that is determined by Islamic cultural values (El-Sanabary, 1994 cited in Alnesyan, 2012). The Islamic religion sees education as a religious duty for both men and women.

Islam dictates that learning is an obligation for every Muslim, man or woman. This obligation, which gives education the status of a religious duty, is the cornerstone of education in the Kingdom of Saudi Arabia. It is the foundation upon which the state builds its educational responsibilities, and in light of which, the citizen performs duties towards himself, his community, and his religion. The roots of education in Saudi Arabia therefore, go deep into the Islamic education which started in the mosque and led to the establishment of schools and universities around their pillars. Al-Salloom (1989 cited in Alnesyan, 2012, p.37)

As Islamic religious beliefs are prevalent in Saudi society, it is difficult to interpret educational issues without referring to Islamic values. One of the important issues related to education that has attracted attention by local law is to segregate males and females at all levels and in all spheres (Oyaid, 2009). The Ministry of Education provides female-only universities and schools in order to adhere to religious values. In regard to cultural values in Saudi Arabia, since it is a conservative society, the Ministry of Education has established rules that do not conflict with cultural values. For example, according to Alebaikan (2010), female students are not allowed to leave university without their

families' permission and they are not allowed to stay at university after official work hours (8 am to 4 pm).

2.4 Educational system in Saudi Arabia

The first system of education in Saudi Arabia was the establishment of the Directorate of Knowledge in 1925. It formed the foundation of the education system for males when it established four schools, and with the development of the country there are now more than 320 schools across Saudi Arabia (Ministry of Education, 2016).

2.4.1 The Ministry of Education in Saudi Arabia

The Ministry of Education is responsible for public education in the Kingdom of Saudi Arabia since it was founded under the name of the "Ministry of Knowledge" in the reign of King Saud in 1953. In 1960, King Faisal ordered the establishment of the General Presidency for Girls' Education, which merged with the Ministry of Knowledge. Subsequently, the name has changed from the Ministry of Knowledge to the Ministry of Education (Ministry of Education, 2016).

The Ministry of Education divides the education system into four stages: pre-school, primary school, intermediate and secondary school stages. The pre-school stage is for children under the age of six, which is not mandatory. It aims to develop the child morally, mentally and physically in conditions that are similar to the family atmosphere under religious standards and which accustom the child to the school atmosphere. The second stage is the primary school stage which is free and compulsory and takes children between 6 and 12 years old. It focuses on the development of basic skills such as language, numerical

and motion skills, in addition to encouraging the child to have a desire for learning. Students cannot move to the next stage (the intermediate stage) if they do not get their Primary Education Certificate. The intermediate stage, which lasts three years taking children from 13 to 15 years old, is a cultural stage in general, and aims to educate children in Islamic education. The last stage of compulsory education is the secondary school which takes children from 16 to 18 years old. Students who pass the examinations and get the Intermediate Education Certificate are allowed to move to this stage. This stage aims to develop students' thinking and provides an opportunity for students who are able to continue their studies in higher institutes, colleges and universities. The levels of the secondary stage are different from the levels of the intermediate stage. In the last two years of the secondary stage, students specialise in either art and literature or science. After passing the examinations of the secondary stage and getting the Secondary Education Certificate, students are able to go on to university or college according to their specialised path of study (Alnesyan, 2012; Alsenaidi, 2012).

The Ministry of Education supports schools by the construction of private buildings, provision of equipment, designing the curriculum for each stage and providing schools with technology. It also imposes some policies that need to be followed by all schools around the Kingdom (Ministry of Education, 2016; Alzaydi, 2010).

In the reign of King Salman, in 2014, he ordered the integration of the Ministry of Education with the Ministry of Higher Education, which was formally responsible for university education, under the name of the Ministry of Education (Ministry of Education, 2016). The major goal of the Ministry of

Education in Saudi Arabia is to continue its Islamic culture. The following are the objectives of the Ministry of Education:

- 1- To build the personality of the Islamic, national and intellectual student.
- 2- To develop the dogma of loyalty to God through trying to provide the student with Islamic culture so as to be able to recognize and adopt Islamic principles.
- 3- To raise the quality and improve the qualitative level of education
- 4- To expand the construction of buildings and educational facilities and maintain them
- 5- To produce and disseminate scientific and cognitive research and expand graduate programmes
- 6- To award foreign scholarships to outstanding students in order to meet the needs of development and the transfer of knowledge
- 7- To introduce information and communication technology within educational institutions
- 8- To translate useful science and arts to make the knowledge accessible to citizens.

University education in Saudi Arabia has been generously supported by the creation of new universities and science colleges, which were provided with huge funds. The number of universities in the kingdom reached 25 public and nine private universities and 34 private colleges. The first public university was established in Riyadh in 1957 and called Riyadh University but, in 1982, it was renamed King Saud University. Thereafter, another six universities were founded in Saudi Arabia as follows:

- Islamic University was established in 1961.
- King Fahd University for Petroleum and Minerals was established in 1963.
- King Abdul-Aziz University was established in 1967.
- Um Al-Qura University was established in 1967.
- Imam Muhammad Bin Saud Islamic University was established in 1974.
- King Faisal University was established in 1975.

Most universities admit both males and females except that the Islamic University in Al-Madinah and the University of Petroleum and Minerals in Dhahran only accept males, while Princess Noura bint Abdulrahman University in Riyadh only accepts females.

In 1975, the Ministry of Higher Education in the kingdom established a long-term plan that aimed to produce the highly-skilled manpower needed to run the nation's economy. This plan had several objectives. First of all, it sought to provide new institutions of higher education and universities in different regions of the country. Secondly, it provided undergraduate and postgraduate programmes in the majority of fields at these universities. Moreover, these institutions of higher education and universities offer Bachelors, Diplomas, Master and Doctorate degrees in both humanity and social science colleges and scientific colleges. The Bachelor degree demands four years in humanity and social science fields and five or six years in the sciences such as medicine and engineering. Most fields in both humanity and social science colleges and science colleges are taught in Arabic language, but some fields in the scientific colleges, like medicine and engineering disciplines, are taught in English.

Institutions of higher education encountered many challenges, one of the major ones being a lack of funds. More specifically, Alkhazim (2003 cited in Alebaikan, 2010, p.483) indicated that “difficulties in meeting rising demand to admit more students, difficulties in meeting outcome quality in relation to work force needs, and difficulties in securing more resources”. However, during the reign of King Abdullah since (2005), the Saudi Ministry of Higher Education has given greater attention and support than in the past. This is shown through the dramatically increased number of universities, with more than 20 universities and many private colleges, such as the Arabic Open University and Prince Sultan University, that have been provided with high standards of educational facilities and infrastructure. As a result, there has been a dramatic increase in the number of students enrolled in these universities. In addition, from 2010 until the present time, the Ministry has encouraged students to study abroad by providing them with scholarship programmes. The number of these international scholarships was more than 70,000 in 2010.

2.4.2 E-learning and distance learning in higher education

The Ministry of Higher Education has taken practical steps towards the dissemination of its initiatives related to e-learning and distance learning. This initiative is a national project that aims to serve learners in all cities of Saudi Arabia. It is seen as a new style of education that facilitates the learning process. The Ministry of Higher Education invited interested members of the teaching staff in the universities to deal positively with this initiative, because it offers them solutions for many of the problems that might hinder the learning process in higher education.

In 2006, the National Centre for E-learning was established in Saudi Arabia with a large investment. It is one of the first national projects that aims to be the central core of the institutions of higher education and to facilitate the learning process for students, as well to address the shortage of faculty members. According to the National Centre for E-learning (2006), this project has several objectives as follows:

- Dissemination of e-learning and distance learning applications in higher education institutions in line with the quality standards
- Dissemination of technical awareness, and the culture of e-learning and distance learning among universities' students
- Supporting research and studies that relate to e-learning and distance learning
- Construction of educational software and circulating it to serve the educational process in the public and private sectors
- Encouraging outstanding projects in e-learning and distance learning in university education institutions
- Holding meetings, organizing conferences and workshops that contribute to the development of e-learning and distance learning
- International cooperation with organizations and international bodies that are relevant in the areas of e-learning and distance learning.

There are more than seven universities in the kingdom that have agreed to employ the system of E-learning and distance learning. Alebaikan (2010) argued that King Abdul Aziz University was the first Saudi university in Jeddah

that implemented a virtual learning environment by offering Bachelor degrees through distance learning.

Furthermore, the National Centre for E-learning and Distance Learning conducted a number of educational projects in a short time. The Learning Management System 'Jusur' is one of the National projects that was created in 2007. This system is an environment used to develop educational materials and gives the learner, the lecturer and researchers several features and services. For example, it allows researchers to search and gain quick access to the texts and media needed to build learning content. It helps learners to access their grades and homework through their own pages. It also helps lecturers to build electronic tests through learning management systems and submit them to the students, and store grades automatically in private tables.

Moreover, the National Centre for E-learning (2006) stated that Saudi Digital Library is another project aimed to improve the learning process in the kingdom through support of learning and the education system in general and e-learning in particular and to meet the requirements of research. It seeks to save time and effort in the learning, teaching and research processes. It offers sources and references related to the curriculums of E-learning, and it also facilitates the exchange of information among learners.

Three universities in KSA offer a distance learning programme: King Saud University in Riyadh, King Abdul-Aziz University in Jeddah, and King Faisal University in Al-Hasa. All universities aim to integrate and train both students and lecturers with technologies that fit with distance learning. In 2006, the first Deanship of distance learning was established in King Abdul-Aziz University

and then followed by the other two universities (Aljabre, 2012). This Deanship was responsible for developing and implementing websites, such as a Blackboard Learning Management System, virtual classroom synchronous system and class capturing/recording system, to make learning processes among distance students easier.

Blackboard is a distance learning management system that allows the students to exchange files, communicate with lecturers and colleagues through discussion boards, forums and emails. This system provides authoring tools in multiple formats, which gives both lecturers and students the chance to exchange audio, video and photos files. Students can attend live classes or using the class capturing/recording system that allows lecturers to record the lecture in order to upload it or have access to recorded classes if needed at any time from any location. Moreover, the virtual classroom system, which is seen as the distance learning system, can help students to access some academic materials such as tasks, online resources, online books or articles, and assessments.

2.4.3 Social Networking Sites in higher education

Saudi Arabian people are the heaviest users of SNSs in the world, particularly of Twitter, YouTube, Facebook and WhatsApp (Alsolamy, 2017). More than half the population uses SNSs for different purposes and they spend approximately two to three hours daily using them. Recently, Saudi Arabia has tended towards other more recent SNSs like Snapchat, Instagram and WhatsApp. Most SNSs users in the kingdom have an account on one of these sites (Puddington, 2013). For example, Twitter users in Saudi Arabia occupy the first level in the Arab world compared to other SNSs users, where they tweet at a rate of five times a

day (Fatany, 2012, cited in Kutbi, 2005). In Facebook, the number of its users amounted to 11 million in 2015, where users participate to spread around ten posts per week. Regarding Instagram and Snapchat sites, they have recently become the most active social networking sites in Saudi Arabia, where the number of Instagram users reached eight million and the number of Snapchat users reached seven million. Saudi Arabia ranks 14th internationally in the use of the WhatsApp site, where its users use it mostly for communication with others. A small percentage of Saudis use other SNSs for different purposes, such as Ask, Blog and Flickr (Habash, 2015).

As SNSs have grown massively over the last years in Saudi society, they have been introduced in Saudi universities and they are used by students and lecturers in order to support both learning and teaching (Aifan, 2015). Several studies have been conducted to discover the effects of the use of SNSs to support student's learning in Saudi context. Aifan (2015) is one of the researchers who has investigated Saudi students' attitudes towards using SNSs to support their learning. She found that most students like the ease of use of SNSs for educational aims. For instance, she reported that Saudi students use WhatsApp with their lecturers for communication, announcements, or answering and asking questions related to the courses. Students think that using SNSs to communicate with their colleagues and lecturers is a good learning experience. This means that students can exchange knowledge and receive help from their lecturers by these sites. She also discovered that the use of SNSs, such as Facebook, Twitter, YouTube and Skype, in teaching environments increases students' learning. However, her study adopted only quantitative methods to study the issue.

Kutbi (2005) is another researcher, who sought to determine how Saudi female undergraduate students perceive SNSs as a learning tool. From questionnaire and interview data, she claimed that SNSs provide shy students with a chance to participate without worrying about speaking and discussing with others in public, although some students reported that poor internet connection was a reason that negatively affected their use of SNSs to support learning.

In 2014, I conducted a study (Alqirnas, 2014) in a Saudi context to investigate University of Hail students' intention to use SNSs for self-study. By adopting a quantitative method (questionnaire), I found that most University of Hail students deal with Twitter more than with other SNSs. The reason for students' use of Twitter was that the university has official accounts, through which it contacts its students. However, there are aspects that need to be explored in greater depth, such as personal and contextual factors, and how the learning process influences, and influenced by, the use of SNSs to support personal learning. Thus, for this thesis, I investigate this issue deeply in the same context through a case study approach and I shed more light on these factors in order to reach the answers.

2.4.4 The University of Hail

The University of Hail is located in Hail city in Saudi Arabia and was established in 2005. The teaching language in the university is English except in Islamic and Arabic Studies materials. Thus, the university requires their students join for a preparatory year on a programme aims to prepare them to develop their English language and their abilities that will qualify them for different academic paths. The university consists of 14 colleges: Faculty of Sharia and Law, College of Human Medicine, Faculty of Dentistry, Faculty of Pharmacy, Faculty

of Applied Medical Sciences, College of Nursing, School of Public Health Sciences, College of Engineering, Faculty of Science and Computer Engineering, College of Science, Community College, College of Education, Faculty of Arts and College of Business Administration (University of Hail, 2011).

The University of Hail contains 11 Deanships, including the Deanship of Information Technology and E-learning. Earlier, the deanship had been founded under the name "Information Technology Centre". Later on, it was changed to "Deanship of information technology and e-learning", which seeks to expand its terms and to assign more responsibilities such as performing all tasks related to information technology and e-learning. This deanship has a variety of advanced technical capacities and seeks to create a modern learning environment with sophisticated academic supportive materials. It provides software, hardware and e-learning devices to all departments at the University of Hail, and it also provides maintenance services to computer laboratories. In addition to the Deanship of Information Technology and E-learning, the University of Hail founded the Electronic Library Service that works to provide all digital sources of knowledge and make it available to the employees and students of the university. It has become similar to its counterparts in other Saudi universities in terms of the number of digital books and scientific studies and research. As the University seeks to provide a suitable learning environment for its students, it created an educational forum aiming to develop students educationally and to address the educational problems that might face them during their study through communicating with professionals and colleagues.

2.5 Summary of the chapter

This chapter has provided background information about the study context of Saudi Arabia. Firstly, it gave general information about the country and people of Saudi Arabia followed by the cultural and religious aspects and their relationship with people's lives in general and, particularly, education. I then provided detailed information about the educational system, E-learning in higher education, social networks in higher education and, finally, information about the University of Hail where this study took place. In the following chapter I discuss the relevant literature and theoretical framework of the study.

3 Literature review

3.1 Introduction

This chapter presents and discusses the literature relevant to this study. Although searching for literature might be done easily, it required a systematic strategy in order to reach all relevant literature from different resources. Therefore, I set a clear strategy to search for relevant literature. Firstly, I defined my study's area of focus and initial research questions keeping the use of social networks for personal learning in mind as a domain. I also identified all types of literature I am looking for including journal articles, books, dissertations, policy documents etc. I also listed all the potential sources such as Google scholar, available databases, library catalogues, professional websites etc. Using keywords was the most effective way to reach the relevant literature. So, I defined my keywords and search terms (e.g. social networks, personal learning, SDL, SRL, technology, higher education, self-study etc) that were relevant to all the aspects of this study taking into account the scope and the limitations of the search. I also widened the scope of search by using AND/NOT/OR commands through the advanced options in databases accessed. Moreover, I considered some strategies when using the keywords such as using synonyms of the keywords, spelling differences, abbreviations and other languages. After identifying relevant literature through these strategies, I looked at the references lists for further relevant literature.

This chapter is divided into seven sections. Firstly, I discuss literature related to the use of technology in general in higher education, followed by E-learning in higher education. I also discuss Web 2.0 and its tools and applications and

the use of Social Networking Sites (SNSs) in higher education, including some popular SNSs. I then move to the literature related to personal learning environments and the role of social networks within these environments. After discussing the relevant literature on technology, social networks, personal learning, and the relationships between these domains, I discuss the study's theoretical framework. This includes a discussion about the Self-Directed Learning theory (SDL) and the differences between this theory and the Self-Regulated Learning theory (SRL). After presenting historical information about theories, I discuss SDL through SNSs as a model and how this has informed the study, along with other theoretical concepts adopted in the current study, namely, affordance theory and the theoretical concepts of identity and agency.

3.2 Information and Communication Technology (ICT) in Higher Education

The impact of ICT over the last three decades has been huge in all areas of life and the research evidence shows that most people use ICT in their daily lives (Sarkar, 2012). Education is one of the fields that has significantly changed due to the introduction of technology. Many countries, such as the USA, Canada and the UK, have introduced ICT into their schools, school administrations and universities (Williams, Coles, Richardson, Wilson, & Tuson, 2000) so as to improve the teaching and learning processes (Wong, Goh, & Rahmat, 2013). Statistics Canada (2008, cited in Freeman & Hasnaoui, 2010: 5) defined ICT as "a field of work and study that includes technologies such as desktop and laptop computers, software, peripherals, and connections to the Internet that are intended to fulfil information processing and communications functions". ICT includes technological tools such as radio, hardware, TV, software, video, DVD,

satellite systems and computers; as well as the services associated with these technologies like e-mail and videoconferencing (Toro, Ulka, & Joshi, 2012).

ICTs have been introduced into the educational field generally and into higher education institutions particularly (Wong et al., 2013). According to Mbodila, Jones, and Muhandji (2013) and Jaffer, Ng'ambi, and Czerniewicz (2007), combining ICTs with teaching activities in higher education promotes interaction between lecturers and learners, and improves the quality of teaching and learning. Russell (2008) found that students spent more than 23 hours weekly using technologies, whether for entertainment or educational purposes, which may be a reason why many UK universities have introduced ICTs. They believe that ICTs will motivate and engage undergraduate students in their learning; strengthen the teaching process; provide scope for connection between lecturers and students; make the educational environment dynamic and productive; and create a higher level of educational collaboration among students, lecturers and other groups (Kinaanath, 2013; Wong et al., 2013). Developing countries, such as Saudi Arabia, have also introduced ICT in their universities. Alturise and Alojaiman (2013) found that ICT in Saudi Arabia's universities provided lecturers with choices of multimedia, software and applications that created enthusiasm, and attracted students to the lectures and to the subject that being taught.

Furthermore, it was found that undergraduate students had a positive attitude toward using ICT tools in learning, which encouraged them to learn more quickly than in the traditional way based on teacher-student interaction without digital technology (Garcia, Escofet, & Gros, 2013). They also stated that undergraduate students believed that using ICT in higher education would help

a lecturer to pay more attention to them, and that this would improve their progress in their courses. Chapma and Mahlck (2004) added that students also perceived a kind of enjoyment and pleasure when introducing ICT tools such as videos, TV and computer software that combine texts, sounds and pictures. However, Chapma and Mahlck (2004) argued that there was a need for basic skills to enable both the undergraduate students and educators to have flexibility in the use of ICT tools; for instance, how to use PowerPoint to present their work or communicate with others by using e-mail (Williams et al., 2000). In fact, training for undergraduate students was needed in order to obtain those skills, because they were regarded as a vital component in combining technological tools with the learning process in an effective way (Sangra & Gonzalez-Sanmamed, 2010).

ICT has rapidly changed the higher education landscape, contributed to creating a flexible learning environment and provided learners with a high quality of education. ICT can also help in overcoming certain cultural challenges, such as that of gender segregation in Saudi Arabian educational institutions where technology allows people of different genders to communicate within the HE context. For instance, in Saudi Arabia, female universities are separate from male universities. There is also a shortage of lecturers. These factors have encouraged Saudi Arabia to benefit from ICT to help male and female lecturers to use ICT tools, such as multimedia and PowerPoint presentations, to teach students remotely and thereby facilitate the learning process (Altowjry, 2005).

Significantly, ICT can transform the learning process from the traditional teacher-centred to a student-centred learning environment (Jimmy, Macharia,

& Pelser, 2014), which means that students in higher education would be able to take responsibility for their own learning (Krishna, 2007). However, in order to expand the use of ICT in higher education, it is necessary to take into account several factors that might act against this. For example, policy makers play a vital role in promoting students' learning through maintaining the ICT infrastructure, facilitating access to technology across the universities, and providing high levels of technical support for lecturers (Clarke & Luger, 2010, cited in Alqirnas, 2014).

3.3 E-learning in higher education

E-learning has become increasingly significant in education (Boezerooy, 2006). Even though it has existed in the educational field since the nineties, there is still no clear definition of e-learning among academics and researchers. The E-Content Report (2004, cited in Gyambrah, 2007, p: 26) described e-learning "as an umbrella term describing any type of learning that depends on or is enhanced by electronic communication using the latest information and communication technologies (ICT)". Some researchers, such as Robinson (2009), described e-learning as a set of ICT technology-based applications, including web-based learning, networked learning, technology-based training, online learning and virtual learning, which facilitate the learning process. It was also defined by Punnoose (2012) as "the employment of advancements in electronic technology to create, deliver, and manage learning content, to facilitate communication and collaboration between parties involved, and to manage the learning activity itself" (p. 302). It is clear that there are similarities between these definitions as they all refer to kinds of ICT tools and how these tools contribute to the creation of a good learning process.

E-learning has caused many changes in higher education, particularly in educational delivery and learning processes (Boezeroy, 2006). For instance, e-learning helps undergraduate students to learn at the appropriate time and place through interactive content based on multimedia, such as Web 2.0 applications. These allow learners to exchange information, construct knowledge, share content, and facilitate distance learning (Guri-Rosenblit, 2005; Selwyn, 2007). Furthermore, according to Dyrbye, Cumyn, Day, and Heflin (2009) and Bullen (2005), e-learning has enhanced distance education in higher education, which gives students an alternative option to attending class on campus. The aim of employing e-learning in universities is also to assist students who have any difficulties in attending campus courses by joining courses via the online learning environment. For instance, for students who cannot study outside their own country due to work, family or other circumstances, e-learning gives access to many universities around the world without the need for physical attendance (Dyrbye et al., 2009). Punnoose (2012) argued that e-learning creates a kind of flexibility of learning through offering the students multiple options, such as using online libraries, other online information resources, or access to university websites, which enables them to study in the way they prefer. However, e-learning may cause a sense of isolation or a lack of community between lecturers and their students due to the delay of feedback among them via e-mail messages and other communication tools (Song, Singleton, Hill, and Koh, 2004).

According to Song et al. (2004), most universities in developed countries have introduced e-learning as part of their programmes to increase the students' engagement and motivation. Echo (2011) argued that integration of e-learning

into traditional methods of learning supports students' interaction and increases the level of their learning. For example, e-learning gives students who have missed lectures an opportunity to go back to the lecture to learn independently, helps students who have misunderstood some points, and it also helps to prepare undergraduate students for examinations.

Developing countries, such as Saudi Arabia, have also implemented a system of e-learning as a part of their university programmes (Echo, 2011). Alebaikan (2010) and Al mulhem (2013) have argued that, since Saudi Arabia is an Islamic country with gender segregated universities for males and females, e-learning may be an ideal solution to give both genders a chance to engage in educational programmes and communicate freely through distance learning strategy. Alebaikan (2010) added that e-learning was promoted by the Ministry of Education in Saudi Arabia, which led to the development of the learning and teaching processes in the universities to increase their educational effectiveness. She found that students were satisfied with introducing e-learning as a part of their programme for communicating significant dates and instructions for assignment submissions or examinations. Guri-Rosenblit (2005) stated, however, that campus attendance should be taken into account in order to help students to understand how to use e-learning and how they could obtain the skills needed to deal with e-learning. In addition, Park (2011) added that e-learning promotes personal learning and provides students with relevant materials that develop and motivate their personal learning.

3.4 Web 2.0 and its tools

The World Wide Web of information has developed from Web1.0, which was based on a one-way transmission of knowledge, to Web 2.0 that seeks to create

two-way communication between people across the world. Web 2.0 is characterized by interaction, facilitates the exchange of information, produces the so-called 'interactive community', and facilitates communities to interact with each other through the e-world without geographic, linguistic or temporal limits (Parvez & Hussain, 2013). Although there have been many attempts to define Web 2.0, in fact there is no clear, uniformly agreed definition. For example, it was defined by Aghaei, Nematbakhsh, and Farsani (2012) as a new platform that depends on the composition of social networks, allows site visitors to create pages and modify them, enables adding to online information, and enables other users to find it. In short, these sites derive their strength from the users themselves and they give users the opportunity to interact with each other. Web 2.0 applications are increasingly embedded in the daily routines of people's lives and even students' learning (Madge, Meek, Wellens, & Hooley, 2009; Parvez & Hussain, 2013). Thus, Web 2.0 and its tools directly influence the students' education, because they do not only allow access and reading of information online, but they also enable learners to create content, share content, give comments and respond to their colleagues and teachers (Parvez & Hussain, 2013).

3.5 Social Networking Sites (SNSs)

SNSs are regarded as an aspect of Web 2.0 that have arisen to meet people's need for human relationships and to open the field of interactive dialogue between individuals, colleagues and friends (Singh & Gill, 2015). SNSs were defined by Ellison (2007, p: 2) as "web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view

and traverse their list of connections and those made by others within the system". This means that SNSs are characterised by the following two points:

- 1- **Continuous communication between users:** effective communication, not only by direct contact between individuals, but by transmitting activities and news from one user to another automatically, without manual intervention.
- 2- **Control of the content displayed:** the only person who is able to determine the content that has been displayed on his or her page is the user.

Today, many types of SNSs have been launched, such as Twitter, Facebook, Ning, Flickr and Bebo, which have become popular Web 2.0 applications around the world in the recent years. They are interactive platforms and facilitate communication and interaction due to their features that enable the user to comment on information, express an opinion, use their free expression, interact with others with the same ideas, encourage certain thoughts or views or introduce specific interesting ideas, as well as to add new ideas to the contents of the page (Buzzetto-More, 2012). Singh and Gill (2015) stated that, as SNSs are online communities made up of people involved in common interests and activities, they provide several modes for users in order to create interaction through conversation, correspondence or e-mail. Therefore, these sites were not only established for social networking among individuals but their use has extended to include wider political, social, religious and cultural activities (Selwyn 2009; Singh & Gill, 2015). For example, Muslim students have used SNSs as tools to create an educational group in order to spread the

teaching of true Islam across the world and to give a good image of Islam (Sharaf, Musa, & Abdul Rahman, 2012).

Raoof, Zaman, Ahmad, and Al-Qaraghuli (2013) and Khashman (2013) have also asserted that SNSs have played a vital role in supporting political movements, over traditional media, in developed and developing countries such as Arab countries. This is because these sites can be used for delivering messages, passing information easily among people who are interested in a topic, and enabling the creation of groups to communicate with other users who share the same viewpoints and to exchange political information. In addition, Singh and Gill (2015) pointed out that most of the SNSs currently existing are websites that offer a range of services to users, such as private messaging, downloading, uploading and sharing photos/videos, blogging and file sharing, browsing friends and adding them into their friends list, and chatting. SNSs gather millions of users in order to facilitate sharing and exchanging interests. They also indicated that, in order to avoid malicious individuals who seek to exploit some of the ideas or shared information, SNSs provide users with safety measures, which are regarded as important features of SNSs. These features give users the means to secure their account by avoiding random requests from unfamiliar persons or fake accounts.

Studies have indicated that the majority of SNS users are adults. Mun, Li, and Fernandez (2011) carried out a study among youth in a Malaysian context, and they found that adults were the most likely to adopt SNSs, for reasons such as making communication easier and more effective than face-to-face, which is limited to a specific place. The users utilised those sites daily to contact their friends or family members and create a kind of entertaining atmosphere (Gill,

2015). Through the personal interviews adopted in this study, the researchers found that entertainment played an important role in the use of SNSs among adults; this might be due to the ease of use of SNSs that encourages frequent use.

However, some researchers discovered negative impacts of SNS use. The most negative criticism was that, despite bringing people closer around the world, SNSs led to isolation of the individual from his/her family, friends and colleagues in the real-life context. This could lead to the disintegration of the family because many users spend their time using these sites and this reduces the sense of family atmosphere (Alshehri, 2012).

3.5.1 Social Networking Sites (SNSs) in higher education

SNSs are not just sites for maintaining and strengthening social bonds, but they are also important educational tools that give good results if they are used appropriately. Therefore, taking advantage of SNSs in the learning process can impact on students' achievement in the several ways (Aldraiweesh, 2015):

- **Personal profile:** Individuals can prepare their own file containing their personal information, such as name, date of birth and interests, and this file enables other users to easily access this information. Thus, this feature enables students to conduct new ways to seek specific information about people who have similar interests.
- **Picture album:** This feature allows students to set up their photo albums; for example, they can put educational images related to a certain topic and present them to all participants, and this helps students to be more positive and encourages them to participate in dialogue and discussion in an easier way than in the classroom.

- Video feature: This feature allows learners to download video files, which helps lecturers to make the learning process easier by providing students with video clips, such as documentaries or explanations of how to do a particular thing related to their field. Students find this entertaining even though it is intended by lecturers to develop students' learning.
- Community feature: This enables groups to form communities that are linked to a single aim or interest, and the work of the group can operate as an alternative to websites on the internet. Thus, this feature can overcome the problem of digital illiteracy by allowing for mutual help in how to use sites effectively, and this encourages students to be productive members of society and of the educational environment (Coiro et al., 2008).
- Important events feature: This feature allows the announcement of important events that happen in the university environment and news of friends and members, and this feature is used to remind students about the dates of lectures or seminars.

3.5.1.1 Social Networking Sites (SNSs) as communication tools

According to Gruber (2009, cited in Falahah & Rosmala, 2012), the majority of universities are beginning to use SNSs to communicate with their students and these sites have become one of the most popular ways of communication among students in educational environments. Falahah and Rosmala (2012) carried out a study in several universities in order to explore the use of SNSs in the higher education environment, especially among lecturers and students. They discovered that, although some universities restricted student access to specific websites that might reduce the universities' productivity and hinder the

communication process among them, other universities had adopted SNSs in order to provide students with information that might be related to their programmes. Falahah and Rosmala (2012) also argued that introducing these social networks supported both students and lecturers and facilitated information acquisition through practising academic activities such as sharing materials, searching for information, task assignments, class rescheduling and examinations. As a result, students had a positive attitude toward using SNSs and they saw SNSs as an important resource for receiving information. In addition, Selwyn (2008) argued that lecturers could also use them as a new method in the classroom, especially in the university context, in order to encourage students to engage in effective activities that differed from traditional teaching methods. This might result from having good previous experiences of using these sites for non-educational purposes (Arquero & Romero-Frías, 2013).

In contrast, Brady, Holcomb, and Smith (2010) indicated that half of North Carolina State University's students preferred face-to-face communication in the learning process over using SNSs. This was because SNSs were a new experience for them and they had only basic skills in their use. Thus, the students did not have enough knowledge about using SNSs or their benefits for educational purposes. This means that, although the previous experience of using SNSs or the familiarity of students with these sites is a key element for facilitating learning, more training is needed so as to help both lecturers and students to achieve their aims faster and more easily and effectively (Arquero & Romero-Frías, 2013).

3.5.1.2 Promoting critical thinking and collaborative learning via Social Networking Sites

SNSs are perceived as an effective tool to help higher level students to improve their level of critical thinking. Arquero & Romero-Frías (2013) carried out a study to investigate the effect of SNSs on higher-level students' critical thinking by using a questionnaire as a quantitative research method. They discovered that there was a connection between using SNSs and promoting the students' critical thinking. For example, they used SNSs to express their perspectives and feelings more freely than in the classroom. They also saw these social sites as tools that helped them to write about their opinions in an open-minded environment. Thus, it can be said that promoting critical thinking among students through using SNSs might lead to successful development of their education and learning.

In addition, according to Kreijns, Kirschner, Jochems, and Van Buuren (2007), providing university students with official accounts for SNSs helped them to work collaboratively together, which contributed effectively to creating a better learning environment. This may be because of the nature of SNSs, in that they support interaction among students from different cultures, backgrounds and social groups. Arquero and Romero-Frías (2013) confirmed that the collaborative learning that occurred among undergraduate students through SNSs gave all of them a chance to benefit from the contributions published by their peers; encouraged other students to solve the questions and difficulties they faced in their learning; and supported students to learn from the others' perspectives about some aspects that interested them. Therefore, this kind of collaboration that occurs among students with SNSs plays a vital role in raising

students' motivation levels which, in turn, leads to improved attainment. Similarly, Yunus, Salehi, and Chenzi (2012) found that, although Malaysian universities had some challenges, such as poor internet connection, a lack of internet access or a lack of devices, their students had positive attitudes toward using SNSs. They attributed this to students' enjoyment in working in collaborative groups, resulting in their increased motivation.

In contrast, Doherty (2009) argued that there were also some real issues that undergraduate students might encounter when using SNSs, which might negatively influence their attitudes to using these sites for educational ends. Unauthorized disclosure of personal information, virtual harassment, identity theft, libel, cyber-bullying and internet addiction disorder are all examples of destructive aspects that can lead students to suffer anxiety, suicidal tendencies, social withdrawal or depression (Buelga, Jesús Cava, & Musitu, 2010). Zaidieh (2012) stated that spending a lot of time using these sites could not only impact negatively on the human body and mental health, and weaken the immune system and hormone levels, but also affect students' education. SNSs may also lower motivation towards learning and make the learning process seem boring; as students spend more time in front of computers, material that does not include audio and visual effects does not attract students to learning (Zaidieh, 2012)

3.5.2 Using Facebook social network as a learning tool

Facebook is one of the most popular sites used widely around the world according to many studies. It is a social networking site which allows people to create accounts, create personal profiles, look for friends and communicate them (Aydin, 2012). Alhazmi and Abdul Rahman (2013) added that Facebook

provides individuals with activities such as chatting online with others, discovering what is happening around the world, exchanging messages and sharing information that interests them. They defined Facebook as “a synthesis of many internet-based communication tools including: personal static pages, synchronous and asynchronous chats, picture uploading, group formation, event hosting, RSS feeds, blogs, mass and individual messaging and email” (p.33). Bowers-Campbell (2008) also described Facebook’s homepage as a social site which helps individuals to communicate with their families and friends or others in order to obtain information that is related to their work, lives or studies. Bowers-Campbell (2008) said that this site gives individuals the opportunity to post photos, send virtual gifts and join groups.

Facebook was founded in February 2004 by Mark Zuckerberg with his colleagues and Harvard University students as a Harvard online SNS, but later, in December 2006, it was expanded and became open to public access for individuals aged over 13 years (Alhazmi & Abdul Rahman, 2013). According to Al-Attas and Al-Hassan (2015), Facebook is the second most popular social networking site in the world. Facebook was ranked ninth out of the best 100 learning tools in 2013 (Al-Attas & Al-Hassan 2015).

3.5.2.1 Facebook users

Alhazmi and Abdul Rahman (2013) noted that the number of Facebook users has gradually grown over time. In 2006, there were more than 11 million active users, while the number of people who had Facebook accounts had increased to approximately 350 million by the end of 2009. They added that, in 2013, the number of active users of Facebook in the world reached about 1 billion users monthly. More specifically, some studies have been carried out in developing

countries over the use of Facebook. For example, Al-Attas and Al-Hassan (2015) indicated that the number of Facebook users in Saudi Arabia amounted to more than seven million and they used it for entertainment and social purposes.

Moreover, Aydin (2012) stated that Facebook was the most popular site in the higher education context, and that its active users were mainly students. Previous research asserted that about 90% of higher education students used Facebook. This means that university students were the most prolific users in the world of the internet generally and SNSs such as Facebook particularly (Rhoades, Irani, Telg, & Myers, 2008). In addition, Roblyer, McDaniel, Webb, Herman, and Witty (2010) discovered from a survey that faculty members preferred using traditional technology tools like email over Facebook, perhaps because of their belief that privacy was an issue when connecting with their students via Facebook compared to email that seemed to be more private.

It was found that there were more than 100 million active users in four-year colleges and universities in the U.S.A (Heiberger & Harper, 2008). A study was also conducted in Saudi universities about using Facebook for educational purposes. Aldraiweesh (2015) indicated that spread of Facebook use among university students in Saudi Arabia had led to enhancing the use of this site for educational purposes, such as academic communication with their lecturers, who in turn provide students with valuable resources that help to increase their educational attainment and to be aware of events or announcements regarding their courses. He added that using Facebook in an educational context enables students to develop their talents and abilities.

3.5.2.2 Features of using Facebook in the educational environment

Due to the importance of Facebook, using such sites in the educational context had been paid more attention over the last few years. The evidence from many studies confirmed the use of Facebook among university students for academic purposes and clearly addressed its advantages (see Alhazmi & Abdul Rahman, 2013; Aydin, 2012; Wang, Scown, Urquhart, & Hardman, 2014).

3.5.2.3 Friendship in Facebook

On Facebook, the meaning of 'friend' differs from the traditional one. Friend often means that offline interaction occurs among people who have a mutual affection. However, in SNSs, Wang et al. (2014, p.26) defined 'friend' as a "move from a face-to-face setting to an electronic context or vice versa". Facebook has the ability to help users to make wide and strong virtual relationships around the world (Wang et al., 2014). It helps individuals to keep in touch with old friends or friends from home. Steinfield, Ellison, and Lampe (2008) argued that Facebook also gives users the opportunity to communicate with new friends and connect with friends from home, which might lead to decreased feelings of homesickness.

Furthermore, there was a difference between the label 'friend' in Facebook and offline; the difference is possibly in the size of the friendship network. The number of friends on Facebook can easily be much larger than the number of offline friends, because Facebook facilitates more interaction and communication with different people from different places (Wang et al., 2014). Therefore, many undergraduates join their university's Facebook account, such as Facebook pre-registration, in order to make new face-to-face friends at university or to keep in contact with current friends in the same course to obtain

assistance if they need it (Madge et al., 2009). They found from an online survey at a UK university that more than half of students in the first academic year used Facebook to communicate with new virtual friends before starting their course. Although face-to-face relationships are very important, the students saw Facebook as part of the 'social glue' that supported them in settling into university life, and as a tool to keep the student body together as a community.

Moreover, Facebook not only facilitates individuals' communication with their families and friends (Aydin, 2012), but it also impacts the academic settings through opening a new world of learning for both educators and students (Couros, 2008; Villano, 2007). According to Hewitt and Forte (2006), over 70% of college students felt more comfortable communicating with their lecturers through Facebook, which led to increasing their engagement, motivation and interaction in the educational environment (Alhazmi & Abdul Rahman, 2013).

3.5.2.4 Social capital in Facebook

The concept of social capital was defined by Bourdieu (1986, p.248) as "the aggregate of the actual or potential resources which are linked to possession of a durable network or more or less institutionalized relationships of mutual acquaintance and recognition...which provides each of its members with the backing of collectively-owned capital". For education, Wang et al. (2014, p. 24) defined social capital in the educational context as "the set of resources that inhere in family relations and in community social organization, which is why these resources are beneficial for the cognitive or social development of a child or young person". In addition, Putnam (1995) stated that there are different types of social capital, such as bridging social capital and bonding social capital, and he distinguished between them. Bridging social capital was explained as a

loose or soft connection among people in order to exchange or share information without needing emotional support (Granovetter, 1983), while Zhao (2006) described bonding social capital as a close relationship, such as between friends, families, classmates or online friends, that occurs between people. Ellison (2007) introduced a third sort of social capital, called maintained social capital. It was explained as the way that individuals are able to keep in contact with a social network without the need to be physically present. There was also a debate about the idea that the use of the internet and technology may reduce users' social capital where they engage more in the virtual world and lose the real social relationships with the others (Nie, 2001). On the other hand, Wellman, Haase, Witte, and Hampton (2001) argued that interaction among people was broadly developed by using the internet, especially SNSs.

In the educational environment, it seems that bridging social capital is the most important communication means that helps college students to maintain social relationship (Ginger, 2008). This can be because the aim of using Facebook in the educational context is only to create surface ties with others who may be interesting to the learner or to create social relationships on Facebook according to individuals' mutual interests to reach goals (Wang et al., 2014).

3.5.2.5 Facebook groups in higher education

A module Facebook group is a community created by universities to motivate students to improve their learning attainment. Some studies have confirmed that the existence of such groups supports students' education. For example, Baran (2010) found that more than 60% of Turkish students had communicated with their lecturers and classmates through a Facebook group to help them to develop their learning. Madge et al. (2009) and Al-Tarawneh (2014) argued that

the use of Facebook groups among students reinforced their educational efforts, because university students who communicated with their classmates via a Facebook group had more opportunity than others to have their questions answered, receive advice from their lecturers, and discuss educational issues that interested them.

In Jordan, Bani-Hani, Al-Sobh, and Abu-Melhim (2014) carried out research at Irbid University College - Al-Balqa' Applied University by adopting both quantitative and qualitative methods to investigate the role of Facebook groups in enhancing the students' level of writing performance. They found that all participants, who were young female students aged between 19 and 25 years, used Facebook to develop their writing processes. For example, the undergraduate students believed that using Facebook groups encouraged them to brainstorm during the pre-writing phase, to reduce the incidence of spelling errors, to develop their vocabulary, and to complete their writing assignments. Indeed, Facebook groups support students in higher education to share information, resources, assignments and documents or send links or photos rather than using the traditional technology such as email, and without the need for physical attendance (Donlana, 2014).

Alhazmi and Abdul Rahman (2013) and Madge et al. (2009) found that students spent their time on Facebook and they checked their accounts regularly, rather than their university emails. Thus, using a Facebook group to inform university students of information related to their courses could be a more effective way to develop their educational engagement. For example, in Saudi Arabia, Aldraiweesh (2015) argued that Saudi students had a positive attitude toward the use of Facebook groups at universities, because such sites

facilitated gaining course information, such as cancellation of a lesson, room changes or deadline reminders.

3.5.3 Using Twitter social networking as a learning tool

Twitter is one of the most popular social networking sites that has spread widely and rapidly and gained global popularity. SNSs generally and Twitter particularly were described by Jenkins, Purushotma, Weigel, Clinton, and Robison (2009, p.10) as part of a “new participatory culture” which “represent[s] ideal learning environments”. Junco, Heiberger, and Loken (2011) argued that Twitter gives members a greater chance for public dialogue than do other SNSs such as Facebook. This is because Twitter is a microblogging service that allows registered users to broadcast short posts, which are restricted to 140 characters (increased recently to 280), called tweets, and users can broadcast tweets and follow other users' tweets by using devices or multiple platforms. Tweets can be sent by mobile phone like short messages service (SMS), or posting at the (Twitter.com website), or e-mail. Twitter's users are also able to “retweet” another user's post to their followers. Twitter is a very popular microblogging system that was launched officially in October 2006 (Grosbeck & Holotescu, 2008). According to Symmons (2013), there were more than 50 million American members of Twitter in 2013, while the number of its Canadian users increased to 7 million by 2012. Twitter has also spread across the Arab world, such as in Egypt and Jordan, but Saudi Arabia has been the largest adopter of Twitter, where Saudi members use it for various purposes (Puddington, 2013).

3.5.3.1 Twitter in higher education

Twitter is not only an application to communicate with friends, exchange social messages and engage in political debates, but there is also a tendency for it to be employed in education. Twitter has played a vital role in supporting university curricula and this helps students to achieve their aims (Albahrain, 2015). Duggan and Brenner (2013) and Protalinski (2014) argued that more than 70% of educators in the USA used SNSs and 60 million users with Twitter accounts used them for educational purposes in 2010. Albahrain (2015) stated that, in Saudi Arabia, the majority of universities created accounts in SNSs, such as King Saud University that established a Twitter account to communicate with its students, and its followers reached 917,000 by 2009. It might be the importance of social presence that has spurred the use of these social sites in existing education settings (Ebner, Lienhardt, Rohs, & Meyer, 2010). This might be the reason why educational institutions, and higher educational institutions in particular, employ Twitter as a social tool, which gives students and faculty members the scope to make learning and teaching easier via sharing information, seeking information, and creating wide relationships among each other (Java, Song, Finin, & Tseng, 2007; Naaman, Boase, & Lai, 2010).

In addition, Junco, Heiberger, and Loken (2011) see Twitter as an educational tool that can be used to make learning more valuable and enjoyable due to its following features:

- 1- Continuity for class debates: students and lecturers cannot discuss all the information they want to because of limited class time, while Twitter is able to meet this need by allowing both students and

teachers to extend their conversations until they reach a conclusion.

This can create a kind of enjoyment and support students' emotional feelings, such as the frustration that they might face while studying (Saeed & Sinnappan, 2011).

- 2- Providing students with a low stress method of asking questions: undergraduates, particularly in the first year, feel uncomfortable asking their lecturers questions in the classroom for reasons such as feeling shy. Therefore, using Twitter helps students to ask any question freely later (Kruger, Epley, Parker, & Ng, 2005).
- 3- Class reminders: the dynamic nature of Twitter allows students to receive reminders about due dates for assignments and dates of examinations by one Twitter feed.
- 4- Providing personal and academic support: Twitter encourages students by sending text messages in order to overcome feelings of stress or anxiety about examinations, and helps students connect with each other and with instructors. In addition, it can give undergraduates information about academic opportunities on campus, such as the location and hours of the tutoring centre.
- 5- Organizing study groups: Another feature of Twitter is to create a study group that aims to introduce help for students who have the same interests, and exchange ideas and information that benefit students on a specific topic.

Today, introducing SNSs such as Twitter in the higher education environment has changed learning approaches based solely on the teacher. In fact, there has been an effective impact of Twitter use on the students' learning and

engagement (Junco, Heiberger, & Loken, 2011). The participants of Junco, Heiberger, and Loken's study were students on a first year course for pre-health professional majors and they were divided into two groups: an experimental group who used Twitter in learning and a control group who did not use Twitter; both groups used Ning instead of a learning management system. They found that students who belonged to the Twitter group had greater engagement than the other group, even though both of them received the same information. This might be because Twitter facilitated communication, engagement, and the democratization of relationships in a way that might never happen in the real world. Thus, Twitter itself helped students and faculty members to engage with each other through conversations regarding their subjects, and connections among them happened quickly compared to the connections that usually happen over a period of time in the classroom.

However, training both teachers and students in how to use Twitter in the educational environment must be taken into account, because training gives students the opportunity to gain required skills (Albahraini, 2015). Even though students obtained skills and developed them by training, Dabbagh and Kitsantas (2012) argued that Twitter itself provided students with direct and clear opportunities to practise skills during posting and responding to tweets. Furthermore, it also encouraged students to develop self-directed learning skills, such as planning and reflecting. For example, when students post and respond to tweets on Twitter, they have more chances to track their own progress and evaluate their own learning (Ebner et al., 2010; Junco, Heiberger, & Loken, 2011).

In a further example, Symmons (2013) used a case study approach to explore how professors at Ontario University used Twitter as a teaching tool. She found that they believed that Twitter was a good tool to facilitate the learning process because it was seen as a channel that could filter information and send it to students with limited words, which makes the learning very easy and interesting. She also confirmed that more than half of professors used Twitter as a tool to communicate with their students in order to provide them with additional information that might help them beyond the course, and support students' engagement to develop their own learning.

According to Mossman (2012), using the hashtag feature (#) enables people to track responses from the others. For example, the use of the hashtag (#edchat) supports educated people to communicate and to ask questions, provides them with advice, validates ideas by debate with others, and gives them constructive criticism (Grosseck & Holotescu, 2008). Therefore, it can be said that using Twitter enables both students and lecturers to have an interactive learning environment, which may successfully create self-education outside the classroom (Albabbain, 2015). In a previous study (Alqirnas, 2014), I investigated Saudi undergraduates' intention to use social networks by adopting the technology acceptance model (TAM). I discovered that the majority of students in Hail University had Twitter accounts and more than half of them used the accounts for educational purposes. This might be because "the university lecturers usually send web links and other information to their students to access reading connecting with the course by this means" (Alqirnas, 2014, p. 85). I also found that undergraduate students believed that using SNSs, particularly Twitter, create an entertaining atmosphere within the educational

environment, which may lead them to intend to use these sites independently and to educate themselves by using Twitter as a personal learning tool. However, there seems to be a lack of evidence in how the university students use such applications for their personal learning and there is a need for more in-depth qualitative studies to explore the factors that could influence their adoption of these applications to improve their learning.

3.6 Personal Learning Environments (PLE) and Social Networking Sites (SNSs)

When we think about learning, we immediately think about schools or universities, but in fact, learning might take place outside these traditional settings. This type of learning occurs in a personal learning environment (PLE) (Sefton-Green, 2004). Gillet, Law, and Chatterjee (2010, p. 2) described PLE as “a set of devices, tools, applications, and physical or virtual spaces associated by learners at a specific time, for a specific purpose, and in a given context”. The Educause Learning Initiative (ELI) (2009, p.1) also defined PLE as the “tools, communities, and services that constitute the individual educational platforms that learners use to direct their own learning and pursue educational goals”. It is clear that both definitions have the same meaning and they focus on the personal aspect in the learning process. Also, they perceive PLE as consisting of pedagogical or technological methods that enable the learner to organize and direct the learning process. Therefore, it can be said that PLE is inherently self-directed where it aims to support the learner to take responsibility for his or her own learning (Song & Lee, 2014).

The concept of personal learning appeared long ago (Tough, 1979) and it is regarded as a significant form of learning because it assists the learner to have

deeper understanding, higher quality of learning outcomes, and expanded thinking (Jahnke, 2013). Regarding PLE in educational institutions, Martindale and Dowdy (2010) stated that lecturers have the control of the learning process but leave a little room for their students to manage and maintain their learning activities, such as through lunchtime discussions, study groups and students' organizations. Today, however, PLE has developed with emerging technology (Lucas & Moreira, 2009), particularly Web 2.0 such as SNSs (Dabbagh & Kitsantas, 2012). Selwyn (2007) found that SNSs can enable learners around the world to develop their personal learning at home or elsewhere through online PLE. Hague and Logan (2009) confirmed that more than 70% of young people used SNSs to support them to learn independently. This means that most students tend to take responsibility for their own learning through SNSs regardless of the effectiveness of their use of these tools. Therefore, it can be said that the reason why Web 2.0 applications such as SNSs influence PLE might be because those sites provide the learner with a chance to learn anywhere, any time and even from anyone (Song & Lee, 2014), or because both these sites and PLE are based on the learners more than on the content itself, which can lead the learner to determine the learning content (Cristea, Ghali, & Joy, 2011). According to Cho and Cho (2013), SNSs play a useful role in developing students' personal learning because they can create interaction among students or between students and their lecturers, and increase the speed of access to information.

More significantly, using SNSs for personal learning can support students to manage their time more effectively and save their energy (Alqirnas, 2014). For instance, using a blog enables readers to read and gain the knowledge and

information that are needed faster than the traditional way such as reading a book. Brady, Holcomb, and Smith (2010) sought to explore distance students' attitudes toward SNSs, particularly Ning online platform, as a productive online tool for teaching and learning in the College of Education (CED) at North Carolina State University. They found that, although some distance students preferred the traditional approach of communication (face-to-face) because they perceived SNSs as a new experience and they did not feel confident about using these sites, the majority of them believed that Ning led to developing online communication among students in the distance education courses. It was also found that these sites allowed distance students to improve their personal learning and meet their own needs. Tarantino, McDonough, and Hua (2013) and Song and Lee (2014) also added that students who used SNSs as a platform to support their personal learning may directly contact educators, scientists or experts to develop their own learning. It can be said that using SNSs for personal aims does not only improve students' communicative skills, but it also contributes to creating an atmosphere of collaboration and engagement by exchanging new information and ideas to construct knowledge.

However, new skills are required from the learner to attain complex digital literacy and visual literacy with the use of SNSs, and these skills may be taught by professional teachers or trainers. The digital literacy described as a 'critical content literacy' that enables the learners to communicate with others, comprehend how to construct knowledge and know where this knowledge comes from (Collin, Rahilly, Richardson, & Third, 2011). Visual literacy was explained by them as the learner being able to upload photos or videos and understand how online content is edited. Rajagopal, Verjans, Costa, and Sloep

(2012) added that, in order for the learner to be successful in PLE-based SNSs, specific skills are needed. For example, skills such as how to engage in dialogues with other users and communicate thoughts or views to listeners, and skills regarding the process of SNSs that enable the learner to develop personal learning and to build the experience of personal connection with the learning. Connolly (2011) argued that students who develop their level of learning by using SNSs for personal learning may feel more confident than in a formal setting. This might be because the learning process is away from the formal environment, which encourages students who are shy to discuss topics with their colleagues and teachers confidently and improve their learning outcomes in aspects such as critical thinking. This opportunity that SNSs provide learners with might be more important for Saudi students in the light of gender segregation where female students could use them to interact with the others confidentially and overcome the cultural restrictions resulted by segregation.

In addition, in my previous study (Alqirnas, 2014), I sought to explore Saudi undergraduates' intention to use SNSs for personal learning and I found that undergraduate students had a positive attitude toward SNSs for personal learning, because they believed that these sites create a kind of enjoyment, which led the students to perceive SNSs as more interesting than reading books to obtain information easily. I found that subjective norms influenced the students' intention to use SNSs for personal learning. For example, undergraduate students thought that people who were very important to them were considered as contributors to support them in their intention to use SNSs for personal learning. I also found that medical students were more likely to believe that using SNSs was a useful tool to improve self-study, because SNSs

introduced many accounts that helped students to find the information that they needed which was related to their academic subject.

3.7 Theoretical framework

3.7.1 Self- Directed Learning theory (SDL)

3.7.1.1 Self-Directed Learning (SDL) and Self-Regulated Learning (SRL)

Before moving to SDL theory, it is necessary to distinguish between Self-Directed Learning (SDL) and Self-Regulated Learning (SRL). SRL was explained by Zimmerman (1989: p.4) where he stated that “students can be described as self-regulated to the degree that they are metacognitively, motivationally, and behaviourally active participants in their own learning process”. He indicated that self-regulated learners prepare to learn by regulating their own motivational beliefs and thinking and managing their learning environment effectively. This means that learners do not rely solely on teachers to give them information and continual guidance, but they take responsibility for achieving their own learning (Zahidi & Binti, 2012). They stated, however, that such independent learning requires skills and cognitive strategies. For example, learners need the ability to plan, set goals, monitor goal progress, apply appropriate strategies in the learning process, and organize their learning from available reading materials. They need to have positive motivational beliefs, such as interest in the task and high self-efficacy, which lead to persistence when facing difficult tasks and thereby lead to optimal levels of fulfilment. They also need to master behavioural processes where they can self-reinforce, manage time effectively, create a suitable learning environment and seek assistance from others (Cho & MacArthur, 2011; Gaskil

& Hoy, 2002). SRL assumes three interdependent components: behaviour, environment and person (self) in triadic reciprocity (Zimmerman, 1989). The three components of learning do not carry equal weight; it might be that one of these acts as a main factor to influence the other two (Albert, 1986). Schunk (1989) confirmed that SRL is not limited to the personal component, but this component is influenced by behavioural and environmental factors and there is interaction among them to influence each other.

On the other hand, SDL was defined by Skiff and Beckendorf (2009) as the process of identifying learning needs, planning learning goals, discovering learning resources and evaluating learning outcomes. Hacker, Dunlosky, and Graesser (1998) identified four phases of the SDL academic learning process: defining tasks; setting goals and planning; creating study strategies; assessing outcomes and reflecting on the study. As the aim of this section is to indicate the similarities and differences between SRL and SDL, these will be explained in detail later.

When trying to offer the similarities between the two concepts, it is noticed that many researchers described SRL synonymously with SDL. For example, both concepts are accompanied by setting goals and monitoring tasks, performance of the plan and self-assessment of the learning process. Intrinsic motivation and external factors, such as human resources, are also considered as factors in those concepts. In addition, there is an overlap between the two theories (SDL and SRL) in the 'personal' aspect of the learners (Saks & Leijen, 2014).

However, the differences between SDL and SRL lie, firstly, in the origin of the concept. The idea of SDL comes from the adult education domain and the relationships between the learner and the environment, whereas SRL focuses

on educational psychology and cognitive psychology. Therefore, SRL is about the metacognitive processes that regulate learning, while SDL focuses more on 'macro level' decisions about learning. Secondly, if we compare SDL with SRL, it is clear that SDL is seen as a broader and wider concept than SRL. This is because SDL gives learners the freedom to set the task, then manage and control the learning activities, while the task in SRL would be pre-defined (Loyens et al., 2008, cited in Saks and Leijen, 2014). Thirdly, the level of SDL skills is different from SRL skills. SDL may be regarded as being at the macro-level, whereas SRL is at the micro-level where it deals with the metacognitive processes of learning. According to Saks and Leijen (2014), the macro-level in SDL refers to learners' ability to plan the learning path, to choose suitable ways to achieve the learning aims, to set the learning goals, find useful resources, and monitor learning activities. Learners in SDL need to be willing and ready to learn independently. The idea of the micro-level in SRL, on the other hand, concerns metacognitive processes within task achievement.

Therefore, as the purpose of this study is to explore the use of SNSs to develop personal learning, the current study will choose SDL as its theoretical framework, because SDL might involve SRL but not the other way around. In other words, in self-directed learning, a learner can improve their self-regulation, but self-regulated learners might not be fully able to direct their own learning. In fact, SDL deals more with the next steps in the learning process, such as reflection and evaluation of the learning elements that can help the learners to develop their personal learning aims.

3.7.1.2 The concept of Self-Directed Learning (SDL)

Many research studies of online learning have found that, although online

learning causes some challenges like technical difficulties and delayed communication, it gives learners useful features such as flexibility and convenience. Research has also revealed that online learning helps the learner to guide and direct his or her own learning, which is an example of self-directed learning (Song & Hill, 2007).

SDL negates the idea of the passive learner in a situation where information is transmitted from teachers to students within a traditional classroom. SDL requires learners to be active, in charge of their own learning and responsible for their own learning process (Conradie, 2014; Fischer & Sugimoto, 2006). SDL has become an important approach to learning over the last decades. One reason for this is the growing evidence that SDL's aim of shifting the responsibility from teacher to learner (Conradie, 2014) helps the learner to gain deeper learning. This means that online learning, such as with SNSs, allows the learner to engage actively in the learning environment, and be a more active learner through exploring, sharing, discussing, producing and reflecting on information, and thereby helping to build knowledge (Czerkawski, 2014; Wilcox, 1996). A second reason is that the process of learning in SDL is less structured than the process of learning in the classroom with a teacher, which is a feature that helps the learner to choose the topic, time and place to learn, and the appropriate way of learning whether through groups or individual activities (Fischer & Sugimoto, 2006).

Various definitions for SDL have been suggested by researchers. For example, Dickinson (1987, p.12) defined SDL as "a state in which the learner is fully in control of the decision-making process regarding the learner's own learning and accepts full responsibility for it, but "will probably seek expert help and advice".

Wilcox (1996: 165) defined SDL as a “process of learning in which learners function autonomously, taking responsibility for planning, initiating, and evaluating their own learning efforts“. According to Gibbons (2002, p. 2), SDL is “any increase in knowledge, skill, accomplishment, or personal development that an individual selects and brings about by his or her own efforts using any method in any circumstances at any time“. Finally, Knowles (1989, p.18) defined SDL as “a process in which individuals take the initiative, with or without help from others, in diagnosing their learning needs, formulating goals, identifying human and material resources, choosing and implementing appropriate learning strategies, and evaluating learning outcomes”.

As the aim of this study is to deeply understand the students’ views and factors (such as personal and environmental factors) that could influence their use of SNSs to develop their personal learning, I adopt the latter definition because it best represents the meaning of ‘personal learning’. Although all definitions stated earlier are similar and refer to the same idea of SDL as being autonomous, I think that Knowles’ definition is more detailed and states more clearly the process of SDL through SNSs aimed at by the current study. For example, I aim to focus on the different processes of SDL stated in the definition, such as planning, monitoring and evaluation. This definition also refers clearly to the importance of setting goals, human or learning resources and strategies which are a core element in this study. However, and as mentioned earlier, all the previous definitions might be used to represent the term SDL in the current study. More detailed information about SDL and its processes as a framework for this study will be presented and discussed later in this chapter.

3.7.1.3 Historical development of Self-Directed Learning (SDL)

The idea of adult education appeared when the need to differentiate between children's ways of learning and adults' ways of learning was recognised, which led to the development of SDL theory (Tan, Divaharan, Tan, & Cheah, 2011). Tan et al. added that the first introduction of SDL was in the United States, and then it was considered as a formal field of study which helped in understanding deeply how adults can learn effectively. Since 1987, SDL theory was introduced annually through international seminars and in 2002 the International Journal of SDL began publication (Hiemstra & Brockett, 2012). Kim, Olfman, Ryan, and Eryilmaz (2014) stated that SDL had been formally studied in the last century by many researchers such as Tough (1979) and Knowles (1989). In early writing on SDL, Tough (1979) carried out a study to explore the extent to which adults directed their self-planned learning projects in a variety of formal settings, such as in churches. He found that the adults in his study were deeply engaged in self-planned learning and that they spent more than 700 hours a year outside the traditional settings in order to develop their skills and achieve their personal goals.

Different researchers have different perspectives on SDL. For example, Harrison (1978) believed that SDL is a process of organising one's learning and he concentrated on the learners' level of autonomy in the instructional process, such as in planning, monitoring and evaluating the learning and its outcomes, whereas other researchers, such as Kasworm (1988), saw SDL as consisting of personal attributes and adults' ability to take responsibility for their learning. In fact, several models were developed to explain the idea of SDL and the factors contributing to SDL, such as Candy's Four-Dimensional model of SDL,

the Personal Responsibility Orientation model (PRO) of SDL, and the Self-Directed Learning (SDL) through Social Networking Sites (SNSs) model.

3.7.1.4 Candy's Four-Dimensional Model of SDL

Candy proposed his SDL model in 1991. He proposed four dimensions for the model. The first dimension is the personal attribute of self-direction, which he named "personal autonomy". He argued that personal autonomy does not mean general personal characteristics, but it means specific skills such as problem solving, critical thinking, self-assessment, reflecting, and monitoring. The second dimension is "self-management", which means the learners' willingness and skills to conduct his or her own learning, for example, setting goals, selecting learning activities, and making a time plan. The third dimension is the individual pursuit of learning opportunities outside the traditional settings, the "independent pursuit of learning", such as in the work or home environment. Environments such as these encourage the learner to learn independently and to construct new knowledge from his or her prior experience. The fourth dimension is "learner-control of instruction", which means the ability of the learner to organise instruction in formal learning environments such as schools or universities. Although SDL in these environments seems to be rare because of the educational authority of teachers, they can help their learners to regulate their learning in order to become self-directed learners and can motivate them to direct their own learning outside the formal setting (Simons, 2000).

Candy (1991) concluded the model by emphasising that all four dimensions play a significant role in directing students' learning. However, the model neglects some vital elements of any learning situation, such as setting and context. Although this model only focused on the limited university context, the

wider context, such as the open online environment, was not described clearly (Song & Hill, 2007). The wider learning environment, where learning and interaction occur, is a very important aspect that has to be considered in the learning and communication process (Barnard & Campbell, 2005).

3.7.1.5 Personal Responsibility Orientation model (PRO) of SDL

Designed by Brockett and Hiemstra (1991), the concept of PRO was applied to develop an understanding of SDL in any setting, whether formal or informal. It contains two orientations: teaching-learning processes and learner characteristics and goals. The former is an external factor because it views SDL as a type of learning “in which a learner assumes primary responsibility for planning, implementing, and evaluating the learning process” (Brockett & Hiemstra, 1991: 24). The latter views learning goals in SDL as “a learner’s desire or preference for assuming responsibility for learning” (Brockett & Hiemstra, 1991: 24). They combined external factors with internal factors in this model in order to comprehend how learners are able to direct their own thoughts and goals. Over time, the PRO model of SDL was developed and, later, social context was introduced as another element.

It is clear that there are similarities in both models. Candy’s four-dimensional model of SDL talked about the personal characteristics and learning processes that support the learner to direct his or her learning, and PRO of SDL also discussed these elements. Context is included in both models, but it is given more attention in the PRO model. According to Brockett and Hiemstra (1991), although the idea of SDL centres on learners’ features, learning processes cannot be isolated from the social context. So, it can be said that, in order to understand self-directed learners’ perspectives, social context has to be

considered because it plays a vital role in the model. The social context might include the political, social or physical environment. In fact, several studies have been conducted in this model to examine personal characteristics and learning activities in conjunction with the physical environment such as libraries, churches and museums. These physical contexts are seen as informal learning environments (Banz, 2009). Informal learning was defined by Carter and Nugent (2010) as the learning that happens outside the classroom or structured environment, while formal learning was defined as learning that occurs inside the classroom context. Some researchers have stated that self-directed learning can be applied in formal settings such as universities (Avdal, 2013), while others, such as Candy (1991), supposed that SDL occurs in both formal and informal settings. However, Carter and Nugent (2010) believed that informal learning is described as self-directed learning. This means that learners can direct their own learning in informal contexts more than in formal contexts. For example, Banz (2009) aimed to understand how SDL occurs within a museum environment by using the Personal Responsibility Orientation (PRO) Model. He adopted two methods: semi-structured interview and observation. The participants were selected randomly from visitors to a museum. The findings indicated that participants visited the museum for different reasons, some for gaining new knowledge or entertainment, while others wanted to engage, interact effectively with other people to exchange information, work in groups to come up with meaningful ideas, or share their experiences with others. This kind of visitor seemed to be more able to direct their own learning because the nature of the physical environment helped self-directed learners to learn better through participation with others, such as

encouraging learners in seeing or asking educators in the museum questions regarding their interests.

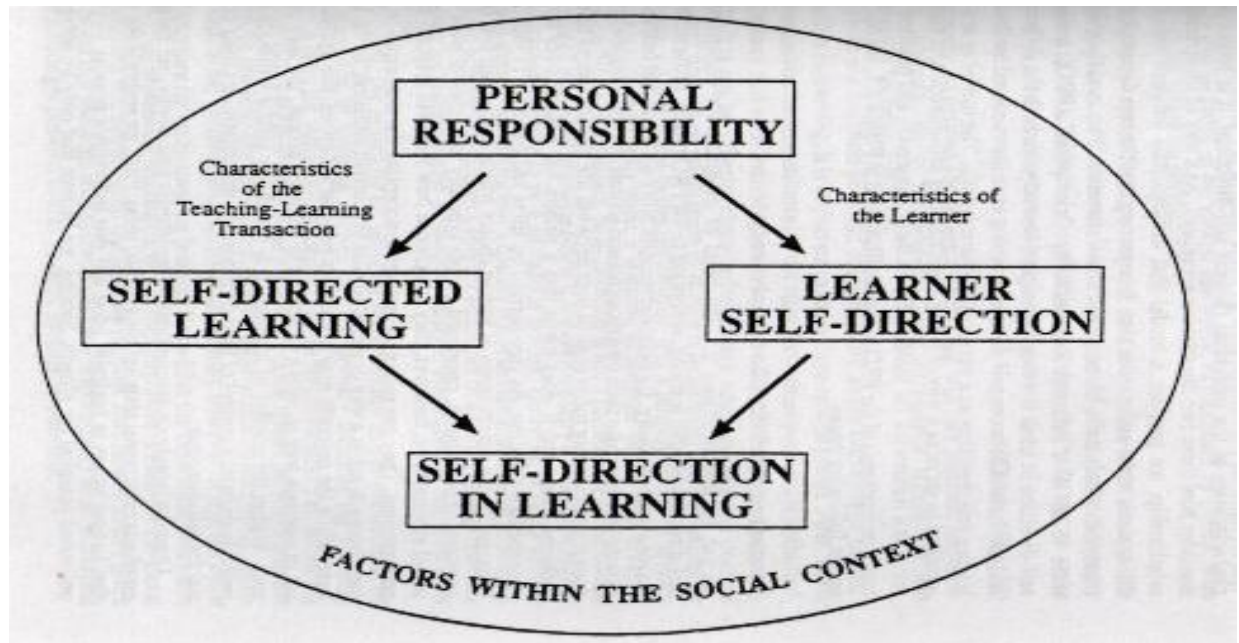


Figure 3-1: Personal Responsibility Orientation model (PRO) of SDL (Brockett & Hiemstra, 1991, p.25)

The diagram above explains PRO of SDL. This model examines two orientations (teaching-learning processes and learner characteristics), and the social context element was integrated with the two factors in this model. Nevertheless, it is still rather limited, particularly in a virtual environment. Therefore, a third model of SDL will now be examined as it provides researchers an in-depth understanding of SDL in the online environment.

3.7.1.6 Self-Directed Learning (SDL) through Social Networking Sites (SNSs) model

According to AlAgha (2009), learners' technical skills are not the only fundamental aspect for success in the learning process, but the willingness and readiness to direct their own learning is also important. In fact, learners who are

able to be self-directed become more responsible for their own learning and more self-motivated than others. This theory has received attention in the last decade due to the growing trend towards the online learning environments, which provides users with an effective learning environment where they can take control over their own learning and develop themselves (AlAgha, 2009). In addition, the online learning environments could support learners to learn in an informal way and it gives them the opportunity to learn at any time or place. For example, it helps learners' choice, such as choosing their subject issues or using their own learning style, and learners' control, such as setting their own learning goals, managing and planning learning (Song & Lee, 2014).

Hanna et al. (2000, cited in AlAgha, 2009) confirmed that SDL is an important component in a successful online learning context because of its physical separation of learners from teachers and other learners. As the online learning environment is changing the way of learning from face-to-face classrooms to virtual classrooms (Song & Hill, 2007), the new model of SDL pays more attention to how the online context impacts on SDL. It adopts two factors; personal attributes and learning processes and theorises how these factors influence SDL. Song and Hill also suggested the online learning context as a third factor of SDL and discuss how this factor impacts on SDL and how it interacts with the other two factors.

First factor: personal attributes

Personal attributes are considered an important factor in SDL. Garrison (1997) stated that personal attributes refer to the learner's willingness and capability for taking responsibility for their own learning. This personal responsibility is seen by Brockett and Hiemstra (1991, p.27) as a "cornerstone of self-direction

in learning”, which means that learners who have personal responsibility are able to have ownership of their learning, set learning goals and direct their thoughts and actions. Candy (1991) added that the learners’ ability to take responsibility to direct their own learning increases explicitly within institutional environments such as classrooms. Furthermore, Kim et al. (2014) argued that this personal responsibility has not only been developed in the traditional context, but it is also supported in the online environments. They found that most business students were able to take personal responsibility and direct the learning process in online courses, which leads students to achieve their learning goals.

There are some personal characteristics that distinguish one individual from others, such as life experience, life satisfaction, motivation, strategies and self-concept. The following paragraphs will explain examples of personal characteristics in the online learning environment.

- **Motivation**

Motivation to learn is closely connected with personal attributes. Ryan and Deci (2000) divided motivation into two components: intrinsic and extrinsic. Intrinsic motivation is described as an individual’s interest in growing in knowledge and skills. There are some factors that impact intrinsic motivation, such as attitude to knowledge acquisition, solving problems, and expectation of performance. In contrast, extrinsic motivation is constructed from external environments to learning. Self-efficacy and attraction of virtual society are examples of factors that influence external motivation. Many studies on SDL proved the existence of a strong connection between learners’ motivation and SDL. For example, Park and Kwon (2004) sought to explore the relationship between employees’

perceived work environment and SDL in Korean companies. They believed that employees in different organizations had different levels of SDL and different perceptions of valuation of individual differences. They concluded that improving employees' SDL, due to the motivation that came from their Korean companies, helped them to design their own learning and subject content in the work environment. This means that motivation seem to play a vital role in developing learners' SDL. However, as the results of this study had a limited scope, more research is needed in a wider range of contexts.

Furthermore, the online learning context supports learners to succeed and achieve their aims. Tan et al. (2011) stated that, in order for the learner to be successful in the online learning environment, self-motivation is required. However, some researchers believed that motivation to learn in the online environment to develop SDL might face some challenges. King (2002) argued that learners' motivation to contribute in-depth thoughts may be low in the online learning environment. For instance, in asynchronous discussions, learners might post messages only to complete the number of messages required in the course. This means that learners, who are not intrinsically motivated to contribute to the online learning process, may not be able to take responsibility and direct their own learning effectively. Kear (2010) argued that another challenge that could influence motivation in online learning is the relationship aspect of online communication, such as some learners' anxiety about presenting their ideas publicly to their colleagues, which might impact negatively on learners' self-direction. Elvers, Polzella and Graetz (2003) added that low interactivity among learners because of a lack of immediacy and non-verbal cues is considered a major concern in the online learning environment,

which may decrease the level of motivation among learners. Therefore, it might lead the learners to have low autonomy to direct their own learning.

Second factor: learning processes

Learning process refers to the learners' autonomous learning process, which means the process of learning that is transmitted from an instructor to a student who then takes charge of the action to achieve his or her aim (Song & Hill, 2007). Specifically, they stated that the learning process includes the process of planning, monitoring and evaluating learning outcomes. Learning process does not occur only in the educational environment, but also in the online environment. In fact, some researchers examined the influence of independent learning on SDL processes, such as Knowles (1989). He found that, in order for students to be successful in the independent learning environment, they have to be active in managing their learning processes. He meant that, instead of waiting for information to be received from instructors, students are accountable for their learning experience whether independently or with support from others. In the online learning setting, there are three areas of learning process have been examined; planning, self-monitoring and evaluating. These areas are explained in the following paragraphs.

- **Planning**

Planning refers to the activities of learners to manage and organise their learning tasks, and includes several behaviours such as setting the goal, learning sequence and learning strategies (AlAgha, 2009). According to Palloff and Pratt (1999, cited in Song & Hill, 2007) the planning process in the online learning environment differs from the traditional one in its flexibility, which helps learners to speed up their own learning. It means that asynchronous online

learning gives learners the opportunity to plan to carry out their activities at any time they want and choose the most comfortable place to study, with the guidance and help of their module leader. If we compare this environment with the traditional classroom, it is clear that in the latter students' physical presence is required at a specific time and place. Kim et al. (2014) carried out a study to see how the use of SDL in an online course improved students' competency in self-management of their own learning processes. The participants were university students in the same field, and they were divided into two groups: an experimental group who had access to the SDLS-enhanced wiki, and a control group who used wiki technology without enhanced SDL features. It is clear that both groups agreed that SDL abilities are very important in wiki technology. They discovered, however, that SDL competence in planning learning activities was higher for the experimental group than for control group. This might be because those students, who had gained higher SDL competence through the experiment, were able to plan to control what to do with their activities and plan their activities by using the calendar as a helpful reminder of future assignments that may have been forgotten.

- **Self-monitoring**

Self-monitoring aims to develop learning processes, and it has been described by Garrison (1997) as the internal cognitive dimensions that are connected with learners' thinking and monitoring of learning. Self-monitoring concentrates on cognitive and metacognitive process such as making information meaningful, learning how to learn, awareness, and thinking about thinking (Tan et al., 2011). Self-monitoring is seen as a very important area of the learning process because it enhances the learner's ability to take responsibility for his or her own

learning, which leads explicitly to creating confidence, motivation and persistence in learning (Abdullah, 2001; Taylor, 1995 cited in Kim et al., 2014). Furthermore, in the classroom setting, teachers can easily monitor and see whether the learner is focussing on learning activities through their facial expressions, while the monitoring process in the online learning setting is left completely to the learners. Thus, increasing the level of accountability for seeking help and resources is needed in order to develop self-monitoring among learners in the online learning environment (Song & Hill, 2007).

- **Evaluating**

Evaluation is the final learning process that is regarded as very important for successful SDL. AlAgha (2009) described it as the assessment of the results of the learning and as the learning activity that helps learners to develop essential skills and activities. The main way to conduct evaluation is through a controlled comparison. For example, in learning a language, students make a recording of a conversation on a certain topic before starting the study, and afterwards they make another recording on the same topic, and they compare the recordings. By comparing, the learners are able to decide whether they have improved their language proficiency. If they have not, they try to change the plan to achieve better learning. Moreover, self-evaluation can influence the achievement level of the learners. Avdal (2013) carried out a study to understand the SDL abilities of students in the nursing school of Dokuz Eylul University and the effects of these abilities on nursing success. She indicated that there was a positive effect from evaluation on the students' performance level in their learning, and that the development of SDL abilities was due to ongoing evaluation during studying.

Third factor: context

This factor concentrates on environmental elements and how these elements influence the learners' level of SDL. Examples of these environmental elements are the learning environment, gender, culture, power and organizational policy. Availability of resources is also a significant factor in the learning context that impacts on learners' SDL abilities (Song & Hill, 2007).

The availability of resources can help learners to take responsibility for their learning, such as books or papers to read, study groups in which to participate with peers or educators, and writing materials (Sisley, 2013). Online resources, such as electronic dialogues, e-books and e-articles, also help individuals in their self-directed use of technology (Bonk, Lee, Kou, Xu, & Sheu, 2015). Dina and Haronb (2013) carried out a study to investigate how information retrieval occurs on the Facebook platform and how this enhances academic performance. They argued that to instil an attitude of "love to learn", the learning context has to be designed to reinforce self-directed learning. The findings of their study confirmed that the information retrieval process through Facebook can impact positively on SDL among learners, and allow learners to seek information without having to be physically present in a traditional environment like a library. Participating students believed that using Facebook helped them to find the necessary information by themselves and that this helped them to study independently. However, the sample of the study was limited (students on a distance learning diploma course at the University of Technology MARA in Malaysia), and only a quantitative method (questionnaire) was used to investigate its aim; I think that adopting a qualitative method, such as semi-structured interview, would yield greater insights into this matter.

However, there are some challenges that might face learners in using online resources. For example, delayed response times from teachers and peers might hinder students in taking advantage of teachers and peers as human resources. The questionable validity and reliability of information found online is another disadvantage of online resources. So, it is necessary to teach learners how to select appropriate information from the internet, and this requires human resources (Song & Hill, 2007).

Human resources, such as teachers who have no formal role, colleagues and educators, are considered the most important resources to support students to direct their own learning in the online environment. Therefore, there is a need in the formal context for scaffolding, which was described as shifting teachers' role from educator to facilitator of learning and as a guide to students on how to find useful resources in order to help them to develop their own SDL (Conradie, 2014). According to Carson and Mynard (2012, cited in Lai, 2015), teachers have several ways of facilitating students SDL outside the classroom: by giving students conceptual information that can increase their consciousness of the learning process; by giving students suitable methods to find resources; or by giving them psychological support that can help to direct their own learning. Fagerlund (2012) sought to explore how technological resources, which are introduced by teachers inside the classroom, influence students' SDL outside the classroom. The result of this study indicated that, when teachers introduced blended learning, students engaged explicitly with those resources, such as continuing to watch videos or listen to songs. This means that teachers motivating students to use online resources inside the classroom impacted positively on students' autonomous use of technology for

learning outside the classroom.

3.7.2 How SDL theory shapes the current study

As the aim of the current study is to explore the use of SNS to promote personal learning by Saudi Arabian university students, self-directed learning theory (SDL) will be adopted as a theoretical framework to study this issue in depth. Learning through SNSs is an action by students that is influenced by many other social factors in the wider context; these factors can directly influence the students' learning through SNSs. I argue that adoption of SDL theory in this study is an appropriate choice because it examines the learners' willingness and readiness to direct his or her own learning. Furthermore, SDL theory considers social aspects, and other aspects in the environment, in addition to the personal or internal aspects related to this type of learning. For example, as the aim of this study is to explore the use of SNSs to promote personal learning, SDL theory will help me to reach my goal, which focuses mainly on personal aspects and is considered a very important factor in this theory. So, SDL can provide me with a theoretical framework that enables me to answer questions around these issues and how students can take their own responsibility or have ownership of their learning in order to direct their learning effectively through SNSs. The second factor in the framework is the contextual factor that concentrates on the environment in which this type of learning takes place. So, SDL theory can enable me, as a researcher, to explore the use of SNSs in developing students' personal learning in higher education, and to find the extent to which human resources, such as educators, colleagues and lecturers, can support students to use SNSs to promote their personal learning. Also, it will help me to discover the impact of SNS resources on students' achievement

in developing their personal learning. As the contextual factor plays a vital role in this model, I will adopt SNSs as the online context to explore how these sites interact with personal attributes and the learning process. This focus of SDL theory on the contextual aspect reveals hidden facets that need to be discovered. Another factor that is considered by this framework is the processes occurring in this type of learning, and how the processes of using SNSs for personal learning (planning, monitoring and evaluation) influence students' learning. Furthermore, the combination of these elements, and how these factors influence each other, could provide a better understanding of the issue under investigation.

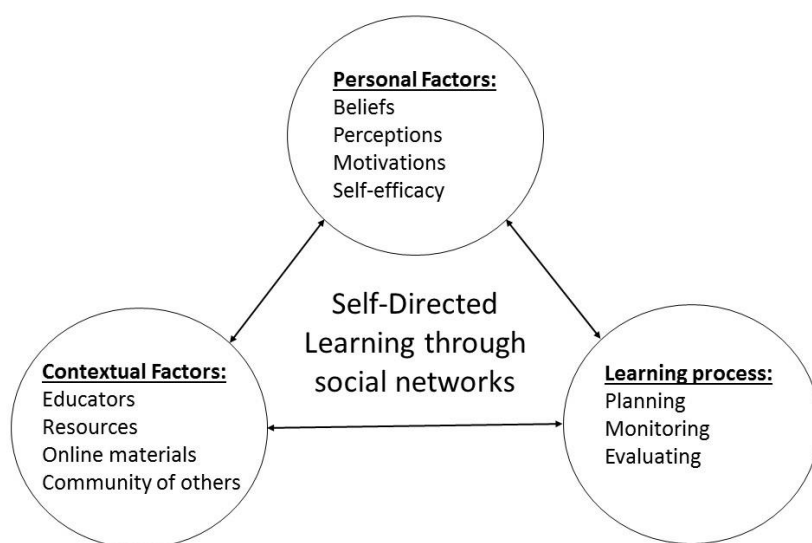


Figure 3-2: Self-Directed Learning (SDL) through Social Networking Sites (SNSs) model

From Figure 3-2, above, in order to provide a better understanding of the issue under investigation, not only personal aspects related to the students themselves need to be considered. Rather, other aspects in the wider context of learning should also be studied and understood in order to provide a

comprehensive picture of this issue. The personal aspects in my study are the students' perceptions about personal learning, SNSs, motivations and self-efficacy, which are essential aspects related to this issue. In addition to personal aspects is the social context. It is considered clearly through this framework, which is an influential element that can directly affect the students' personal learning through SNSs. The social framework includes, for instance, the students' cultural background, their relationships with their colleagues, lecturers, educators, and information providers who they follow in SNSs in order to learn, accounts in SNSs that provide information about the topic the students are going to study, and contents of SNSs that facilitate the students' finding of the information they seek. Moreover, the detailed process of this learning is also considered in this framework, such as planning, monitoring and evaluation. This includes, for example, how the students plan their learning activities through SNSs, set goals, choose learning strategies, decide the time and place for using the SNSs, monitor progress, assess the results of the learning, and evaluate the level of the learning performance. I believe that the combination of these three areas covers most, if not all, aspects related to personal learning through SNSs that will provide a comprehensive understanding and coherent answers to the research questions, which focus on personal and contextual factors and the learning process and how these factors influence the students' use of SNSs to promote their personal learning.

Although SDL theory could guide this study, I believe that it is still too broad in some areas related to the students' personal factors. Within the personal aspects, there seems to be several influential factors that could shape the students' perceptions about personal learning through social networks and their

understanding about their roles and their relationships with these networks and with the others within these networks. Therefore, in addition to the SDL theory, I adopt other theoretical concepts within the main framework of the study to inform the investigation and provide insights into the students' perceptions and thoughts formation. Affordance theory helps me to understand how the students recognise what these networks offer them and how they could take advantages of such tools. In addition, concepts such as identity and agency provide a frame of reference to investigate how the students understand their positions within the learning context and how they perceive their responsibilities against their lecturers' authority during the learning process. In the following two sections, I provide a brief description of Affordance theory and identity and agency concepts as theoretical ideas that inform the study and guide its process.

3.7.2.1 Affordance theory

The concept of affordance was first introduced by the perceptual psychologist James Gibson in 1966 (Brown & Stillman, 2004), who argued that “The affordances of the environment are what it offers the animal, what it provides or furnishes, either for good or ill. The verb ‘to afford’ is found in the dictionary, but the noun affordance is not. I have made it up. I mean by it something that refers to both the environment and the animal in a way that no existing term does. It implies the complementarity of the animal and the environment” (Gibson, 1986, p.127). As affordances are meaningful to animals, they allow for the appearance of certain behaviours. Therefore, affordances are seen as properties of the environment relevant to animals. Later on, the concept of affordance was explained more clearly and broadly, that “an affordance is neither an objective property nor a subjective property; or it is both if you like.

An affordance cuts across the dichotomy of subjective-objective and helps us to understand its inadequacy. It is equally a fact of the environment and a fact of behaviour” (Gibson, 1986, p.129). This means that the affordance can be perceived as the objective-subjective properties that depend on both the environment and the observer’s behaviour.

It is argued that the properties of an environment are always there, but they need to be observed. However, others argue that the properties depend on the observer and how he or she observes them. Therefore, different observers have different kinds of affordances, as argued by Hammond (2010, p. 1) who gave an example that “a tree might afford sheltering from the rain; hiding from a pursuer; or even eating and sustenance if the tree is a source of food. The properties of the tree remain the same, or invariant, but the opportunities provided by the tree differ according to need. Further, the same tree might afford different things at the same time to different organisms”. As Gibson had a realist perceptive and perceived properties of objects as an invariant combination of variables, he believed that affordances are there and they may or may not be discovered by observers depending on their needs and their perceptions of the environment. However, the term ‘affordances’ today is more complex than the origin of Gibson’s affordances.

Affordances have been explained by many researchers, particularly those who have educational opinions such as (Brown & Stillman, 2004; Chemero, 2003; Haines, 2015). Chemero (2003) argued against Gibson’s concept that affordances are properties of the environment. The idea of affordances from Chemero’s point of view is the relationship between the abilities of the organism and features of environmental situations. He argued that, when the affordances

are seen as relationships, then both the abilities of the organism and features of environmental situations are perceived. He added that “affordance is placing features, seeing that the situation allows a certain activity” (2003, p.187).

In educational research, the concept of affordances has appeared recently to determine how a certain learning behaviour can be integrated into a given context (Kirschner, 2002). As the context plays a vital role in forming the idea of affordances, Information and Communication Technologies (ICTs) provide a new environment that can be used in education to afford a support for students to develop their learning. When studying the technology and human interaction, the notion of technology affordances is often adopted. Technology affordances have been described as the interaction between human and technological devices (Brown & Stillman, 2004; Gaver, 1991; Norman, 1995). Thus, this combination helps to obtain different affordances according to the students' perceptions about using technology in learning (Dyrby & Jensen, 2012).

According to Dyrby and Jensen (2012), social networking sites (SNSs) are the most important ICTs contributing to changing the bonds of technology and learners' interaction. The adoption of SNSs has created new standards for how people of different ages integrate with different technological abilities (Shirky, 2009). Wang, Woo, and Quek (2012) investigated the affordances of SNSs for learning and found several different such affordances. Firstly, SNSs afford pedagogical support for students through sharing resources in the form of web links, pictures or videos; giving members in a group the opportunity to share ideas and get feedback from each other; and enabling experts to monitor the students' learning processes by reading their comments posted to the group. Secondly, social affordances can be perceived when using SNSs for learning.

For example, SNSs enable students to continue their discussion after the class and provide them with an opportunity to express their views (Wang & Woo, 2007). As a physical classroom has limited time, SNSs offer students a chance for interaction with their lecturers. Technical affordances are other affordances perceived by students when using SNSs for learning. Although some students faced technical difficulties when using SNSs, most believed in the ease of use of SNSs. Thus, the affordances of SNSs were argued to offer the students many benefits as “they empower the end user to access, create, disseminate and share information easily in a user-friendly open environment” (Elaborates, 2011, p. 25 cited in Zgheib & Dabbagh, 2013).

Regarding undergraduate students in higher education, Zgheib and Dabbagh (2013) investigated students’ perceptions of SNSs use in an educational context. They stated that the use of SNSs in higher education plays a vital role in giving students a fertile educational environment. Students received high quality learning through SNSs’ affordances that give them the chance to learn in a better way and provide them with the necessary features to reflect, share, evaluate and connect with others. Moreover, the educational affordances of SNSs offer scope for students to be self-directed learners (SDL) in a supportive social context, which is consistent with Robertson’s study (2011). Based on qualitative methods and particularly diaries used in this study, she found that although students did not receive enough training in developing SDL skills, SNSs affordances helped students to develop their own self-directed learning, including generating their own learning goals, planning how to solve problems, and evaluating their goal achievement. However, the recognition of these affordances might differ from one student to another and might depend on other

personal factors such as the students' identities and their sense of agency, which could lead to a particular recognition of the SNSs' affordances. Identity and agency are discussed in the following section.

3.7.2.2 Identity and agency

Britzman (1992 cited in Moore, 2008, p.590) described identity as “a constant social negotiation that can never be permanently settled or fixed, occurring as it necessarily does, within the irreconcilable contradictions of situational and historical constraints”. It is dynamic in nature because the identity of the individual can change from time to time and from context to context. Individual identity is developed according to the environment and its characteristics. In other words, the nature of the environment where the individual exists significantly influences the individual's identity. This mean that if the context changes the identity characteristics will change consequently. Therefore, it can be argued that individuals' feelings about their position and role in a given context shapes their identities.

Moreover, identity may be associated with other important aspects, such as students' positions at university. For instance, university students may perceive themselves as independent learners who depend on themselves in learning rather than relying upon the academic staff, or as dependent learners who depend on other things such as curriculum contents, pedagogy and academic staff. In order to identify the individuals' identity, it is necessary to understand their power to originate action in the university environment: are they agents of change? Are they 'instruments' of other agents within the environment? Therefore, it can be said that identity and agency are intertwined concepts (Goldman, Booker, & McDermott, 2008; Moore, 2008).

Human agency is defined as “the realized capacity of people to act upon their world and not only to know about or give personal or intersubjective significance to it. That capacity is the power of people to act purposively and reflectively, in more or less complex interrelationships with one another, to reiterate and remake the world in which they live, in circumstances where they may consider different courses of action possible and desirable, though not necessarily from the same point of view” (Inden, 2000 cited in Moore, 2008, p.591). Holland (2001) argued that, as humans can be seen as social producers and social products, they are not only able to act as agents of change in the environment, but also as instruments of other agents’ actions. Thus, the students’ sense of agency is related to how independent or dependent they are as learners; that is, how their identity as independent or dependent learners within their personal learning environment enables them to make changes in their learning and to take control over their learning process.

With regard to the literature on independent and dependent learners’ identity and agency, it was found that learners’ views, identities, and agencies differ from one to another within the same context and the degree to which their practices can be informed by the identity they shape and the amount of agency they perceive themselves to have (Moore, 2008). For example, Meyer (2010) and Thomas Jones and Ottaway (2015) discovered that some independent learners have strong agency and identity and they perceive themselves as ‘agents of change’ in the learning environment, where they can act as independent learners, while other learners did not see themselves as ‘agents of change’ in the same environment, but they saw themselves as dependent learners. These differences in their identities and agencies might be due to the

amount of power they feel they possess to make changes and influence their learning. They argued that independent learners, who feel their strong agency and responsibility for their own learning process rather than relying on academic staff, seek to understand their learning, and are more motivated to learn and interact with their lectures to structure their personal learning environment.

Others saw themselves as independent learners and acted as 'agents of change' but their agency was not very strong. This means that they seemed to be more independent in their own learning, but this independence might not be assumed in the first years and they needed their lecturers to act as facilitators to help them become more independent in their learning. On the other hand, dependent learners did not see themselves as 'agents of change'. Rather they act as 'instruments' of other stronger agents of action such as lecturers at the university. Therefore, they act only as recipients of knowledge, in which their lecturers have the power in the learning process; they see themselves as subsidiary or dependent learners. Both independent and dependent learners perceived that the new learning environment of Social Networking Sites (SNSs) provided a space for agency.

In short, this study is informed theoretically by the Self-Directed Learning theory and its elements, in addition to the Affordance theory and the identity and agency concepts. This will allow me to discover how the students' perceptions are formed and how their learning process is influenced by their perceptions about the division of responsibilities in the learning context. Also, how their recognition of social networks' affordances, in conjunction with the sense of agency they hold, could influence their relationships with the others in the

learning context and their personal learning strategies. Through this theoretical combination, the study seeks to investigate the following research questions:

- 1- What are Hail University female students' perceptions of personal learning?
- 2- What are Hail University female students' perceptions of the use of social network sites (SNS) for personal learning?
- 3- What are the relationships between the elements of Self Directed Learning (SDL) and the students' use of SNSs for personal learning?
 - How do the students' perceptions influence their SDL activities?
 - What is the relationship between the students' learning process and their use of SNSs for personal learning?
 - How do the contextual and cultural factors influence the students' personal learning?

3.8 Summary of the chapter

This chapter has presented and discussed the literature relevant to the study. It discussed the use of technology in higher education and particularly the use of E-learning. It also discussed literature related to the use of Web 2.0 and its applications and social network uses in higher education. Moreover, it discussed literature about personal learning environments and the role of social networks within these environments. This was followed by the study's theoretical framework, which included Self-Directed Learning theory, Affordance theory, identity and agency, and how the theoretical framework has informed the current study. The following chapter provides detailed information about the research methodology and design.

4 Methodology

4.1 Introduction

This chapter describes the research methodology and design of this study. It presents the research questions, followed by the research paradigm and methodology. It presents the population and sampling of the study, research methods and instruments. In addition, ethical considerations and the procedure of data collection are explained, followed by the data analysis processes. It concludes with a discussion of the trustworthiness of the research including credibility, transferability, dependability and confirmability.

The objective of the study is to investigate the use of SNSs to promote personal learning by Saudi Arabian university students and identify the key factors that influence their use of these sites for personal learning. SDL theory, affordance theory, identity and agency concepts are involved in this study to get a clear picture of the students' relationships with others on these sites to promote personal learning. It seeks to investigate the following research questions:

- 1- What are Hail University female students' perceptions of personal learning?
- 2- What are Hail University female students' perceptions of the use of social network sites (SNS) for personal learning?
- 3- What are the relationships between the elements of Self Directed Learning (SDL) and the students' use of SNSs for personal learning?
 - How do the students' perceptions influence their SDL activities?
 - What is the relationship between the students' learning process and their use of SNSs for personal learning?
 - How do the contextual and cultural factors influence the students' personal learning?

4.2 Research paradigm

Pring (2000) stated that a specific philosophical perspective can be adopted in educational research in order to answer a specific type of question, which helps the researcher to obtain the knowledge that he or she is looking for. Guba (1990) added that choosing the appropriate research approach relies on ontological, epistemological and methodological stances.

Pring (2000) pointed that educational research has two philosophical stances. The first is the positivist philosophical stance, which is defined by Wellington (2000, p.15) as the approach that seeks to gain “objective knowledge of an external reality which is rational and independent of the observer”. This means that the knowledge is not constructed by the researcher's mind and needs to be discovered by adopting specific approaches. This positivist approach aims to understand the physical world and then generalize the findings by adopting quantitative methods like structured interviews and closed-ended questionnaires (Wellington, 2000).

The second (Pring, 2000, p.56) is the interpretive stance, which emphasizes that “human beings cannot be the objects of science and that research must focus upon the ‘subjective meaning’ of the learners”. The interpretive stance is different from the scientific stance that needs to pre-determine dependent and independent variables, it focuses more on the complexity of human behaviour and gives more explanation about the way people act (Kaplan & Maxwell, 2005). Alsenaidi (2012, p. 153) added that interpretive researchers can access reality through “social constructions like language, consciousness and shared meanings”.

The current study is carried out under the umbrella of the interpretive philosophical stance. According to MacNaughton et al. (2001, cited in Alzaydi, 2010, p.103), "Interpretivism seeks to explain how people make sense of their circumstances, that is, of the social world". I believe that, therefore, applying this philosophical stance in this study helps me to investigate the complex nature of students' perceptions and opinions of using SNSs for personal learning, and it also helps me to explore the factors that influence the students' use of SNSs for personal learning. In order to explore this issue within the interpretive stance, the current study obtains both quantitative and qualitative data (within a case study approach) to explore how university students use SNSs for learning, and particularly for personal learning, and to investigate the personal learning process, the contextual and learning outcomes factors, and how these factors affect the students' use of SNSs to promote their personal learning.

4.3 Research methodology

According to Wellington (2000), methodology aims to describe, reflect, evaluate and justify the methods used in research. Methodology was also defined by Crotty (2003, p.7) as "the research design that shapes our choice and use of particular methods and links them to the desired outcomes". Crotty (2003) added that it can use either qualitative or quantitative methods depending on the research questions.

In educational research, there are varieties of approaches that can be used to answer the research questions (Pring, 2000). For example, Cohen, Manion, and Morrison (2000) identified eight categories of educational research

methodology: ethnographic, historical, cross-sectional, longitudinal, correlational, survey, case study and action research. Each category seeks to serve specific research purposes; for example, survey research can offer numerical descriptions of attitudes or perceptions by the use of questionnaires with a view to generalization, while case study research seeks to explore phenomena in depth through observations or semi-structured interviews (Babbie, 1990, cited in Creswell, 2009).

The current study adopts case study as the research methodology. Robson (2002, p.178) defines case study as “a well-established research strategy where the focus is on a case ... in its own right, and taking its context into account. Typically involves multiple methods of data collection. Can include quantitative data, though qualitative data are almost invariably collected”. Yin (2003, p.13) defines case study as “an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident”. The aim of case study methodology is to have an in-depth understanding of a complex issue in its real-life context (Wellington, 2000; Yin, 2003).

There are some significant points that have to be considered when using the case study approach. Firstly, it is a methodology rather than a method such as interview or observation (Robson, 2002). Secondly, all research can be regarded as a case study because “there is always some unit, or set of units, in relation to the collected and analysed data” (Gomm, Hammersley, & Foster, 2000, p.2). However, according to Yin (2003), in order to collect valuable data, the case study allows a researcher to use multiple research methods and data sources, such as interview and focus group, which helps to provide the best

insight into the answers to the research questions and increase the validity of the data collected. Furthermore, according to Denscombe (2010), it is important to note that case studies focus on social processes and relationships so as to comprehend several aspects that relate to the study and how these aspects interact with each other. In addition, Bell (2005) stated that case study is an appropriate style for an individual study that seeks to investigate deeply into the phenomenon during a limited time period. Yin (2003) added that case study seeks to study a phenomenon within its real-life context, particularly when the boundaries between phenomenon and context are not obvious.

The reason for choosing the case study as the research methodology in this study was its appropriateness for answering the research questions. Yin (2003) argued that case study design is adopted when a study seeking to answer 'how' and 'why' questions. He added that case study is the appropriate approach when the study attempts to investigate contextual conditions that are believed to be relevant to the phenomenon under investigation as in the current study where the boundaries between phenomenon and context are not clear. It is also the appropriate approach due to its flexibility of employing the mix of quantitative and qualitative methods needed to answer the research questions such as questionnaire and interview (Yin, 2003). Both quantitative and qualitative methods can provide more detailed information about the use of SNSs to promote personal learning, the factors that influence the use of SNSs for personal learning and how these factors affect each other. According to Nisbet and Watt (1984, cited in Cohen, Manion & Morrison, 2000), there are several strengths of the case study. For example, case study is strong on reality; it can give a deep understanding of a case that be studied, which helps

to interpret other similar cases; and it can be conducted by a single researcher without needing a group of researchers. On the other hand, Denscombe (2010), Wellington (2000) and Yin (2003) believe that the case study has some limitations. Firstly, generalisation is seen as the case study's weakness as it is difficult to generalise from one case to another, particularly in small studies. Cohen, Manion and Morrison (2007) argued that using the term 'extrapolation' instead of 'generalisation' can help to describe how the results are expanded and go beyond the original case. However, in order to avoid this debate, the current study does not aim to generalise its results as it studies the issue in the light of its contextual characteristics. Moreover, Alnesyan (2012) indicated that case study is different from other strategies that produce measurable outcomes; it obtains soft data by adopting qualitative methods rather than quantitative methods, which may lead to bias in its findings. However, I argue that an advantage of the case study is its ability to adopt several research methods (questionnaire, semi-structured interview and text diaries) which contribute to ensuring the quality of the findings.

Yin (2003) identifies three types of case study. These types can be summarized as follows:

- Descriptive case study, which provides an entire description of the phenomenon.
- Explanatory case study, which seeks explanations of the nature of relationships. It tests hypotheses to understand the relationships between variables or the cause and effect relationships.
- Exploratory case study, which aims to provide the researcher with an exploration of new phenomena and help him or her to have a better understanding for this phenomenon.

I believe that the case study type in the current study can be seen as the second and third types, because the aim of this study is to explore the use of SNSs to promote personal learning by Saudi University students. It also seeks to explain the students' perspectives of using SNSs for personal learning, and study in-depth the factors that influence the use of SNSs to promote personal learning, such as personal, contextual and learning process, and the relationships among them, by using various methods of data collection: questionnaire, interview and text diary.

The case in this study is the phenomenon of using SNSs for personal learning by the University of Hail's female students and the boundaries between the phenomenon and the context where it takes place. The students are chosen from the humanity and social sciences colleges and the scientific colleges at the University of Hail. The case was chosen according to the following criteria:

- I have access to resources in Hail University which will facilitate collecting data for my study.
- As a Saudi citizen from the city of Hail, I have an understanding of the context with all its cultural elements that need to be considered in this study.

Thus, I believe that choosing this case rather than any other increases the quality of my research and gives me more insight into the issue under investigation.

4.3.1 Sampling and participants

Sampling is described by Johnson and Christensen (2010, p.216) as “the process of drawing a sample from a population”. In order to produce high quality research, not only the research design and methodology need to be given

enough attention, but there are other important points that need to be considered carefully by the researcher, such as the sample size and sampling strategy (Cohen, Manion, & Morrison, 2000).

Regarding the sample size, Cohen et al. (2000) suggested elements that determine the sample size. Sample size is based on the aim of the study and the research style. For instance, in a quantitative study such as a survey, a large number of participants is needed to obtain numerical data that can be calculated statistically, while in a qualitative study a smaller sample size can be used (Ritchie & Lewis, 2003, cited in Alebaikan, 2010). Accessibility is a further element that should be considered by the researcher when determining the sample size. Cohen et al. (2000) added that the researcher has to “ensure not only that access is permitted, but is, in fact, practicable”. The availability of time for the participants to participate in the study is an important element of deciding the sample size, in addition to accessibility. Moreover, the nature of the population, available support and the number of the researchers have to be taken into account when determining the sample size (Cohen et al., 2000).

Cohen et al. (2000, p.92) argued that “the quality of a piece of research not only stands or falls by the appropriateness of methodology and instrumentation but also by the suitability of the sampling strategy that has been adopted”. There are two strategies of sampling: probability sampling and non-probability sampling. The probability, or random, sample allows the researcher to select participants randomly from the whole population; it also permits the researcher to make generalisations. In contrast, the non-probability, or purposive, sample does not seek generalisation and aims to represent a particular group of the population.

As the study adopted a case study approach, the participants were drawn from the whole population using a non-probability sampling strategy. Firstly, convenience strategy was adopted in the questionnaire phase as the questionnaires were sent to the whole population of female Hail University students. Cohen et al. (2000) argued that this strategy allows researchers to select the study's participants because of their convenient accessibility. For the interviews and diaries phases, purposive strategy was adopted to select the available participants from those who had completed the questionnaires and agreed to participate in the interview phase later. The sample of the study consisted of two small groups of students: the humanity and social sciences colleges and the scientific colleges at the University of Hail. Within each group there are sub-divisions according to the year of study, from year one to year five. Cohen et al. (2000, p.102) confirmed that non-probability sampling is used in "small scale research, for example, as with one or two schools, two or three groups of students, or a particular group of teachers, where no attempt to generalize is desired; this is frequently the case for some ethnographic research, action research or case study research".

As will be explained in greater detail later, I distributed the questionnaire (first phase of the study) to the whole population of female Hail students and received 522 responses. This strategy is consistent with the questionnaire aim of obtaining background information about the issue under investigation from a larger sample to understand the general trend among the study population. Sending the questionnaire to the whole population of the female students resulted in receiving large number of responses mentioned earlier. Therefore, receiving this relatively large number of responses has enrich the findings of

the study and contributed in showing how the students think about the use of social networks for personal learning. From those who completed the questionnaire, only 29 participants agreed to participate in the interviews (second phase of the study). Later, two of them decided not to participate and the total number of interview participants fell to 27, from different colleges and different years of study. In order to widen the scope of the study and obtain required data, I chose to take all available participants for the interview phase which included students from different subjects and years of study. This diversity of the interview sub-groups has provided me with the opportunity to cover all the important aspects and has enriched the findings of the study by providing all required data to conduct this study effectively. From those who participated in the interview, ten agreed to participate in the text diaries (third phase of the study). This smaller number of participants who agreed to participate in this phase also included students from different subjects and years of study. This has provided me with the opportunity to widen the focus and include all possible aspects that might influence the students' performance when learning personally. I argue that, although there are differences in the sample size of each phase which is normal on the light of the aims and objectives of each phase, it can be noticed that each phase consisted of participants from different groups such as subject and year of study. These groups of participants also contained participants with different perceptions and views about social networks and personal learning. Therefore, I may argue that the sampling strategy adopted in this study was an appropriate strategy that has provided me with rich data that allowed me to cover all aspects around the issue under investigation. However, it might be the case that those who chose

to participate in the qualitative phase of the study, especially text diaries, have been already interested in personal learning and adopted this type of learning during their university study.

4.3.1 Research methods and instruments

4.3.1.1 Questionnaire

According to Kumar (2011, p.145), the questionnaire is a “written list of questions, the answers to which are recorded by respondents. In questionnaires respondents read the questions, interpret what is expected and then write down the answers”. The aim of using the questionnaire as a data collection method in this study is because “Such a survey could be designed as part of a case study and produce quantitative data as part of the case study evidence” (Yin, 2003, p.91). Although the questionnaire adopted was informed by the scientific paradigm (Yin, 2003), Willington (2000) confirmed that questionnaire data can often be “qualitative” in nature and can resemble interview data in that it helps to develop theory.

I argue that, although this study is fundamentally qualitative in nature, using the questionnaire as a first phase of data collection helps me to obtain quantitative data from a large number of students about their perceptions of the use of SNSs for learning and particularly personal learning, and the factors of self-directed learning that influence their use of SNSs to promote personal learning. I also believe that the questionnaire gives a broad sense of the students’ perceptions about SNSs and a wide picture of the issue under investigation because it is collected from a large sample. It provides useful background information for the issue and it helps to highlight certain issues that need to be studied in more

depth in the interview phase and text diaries phase, which are the main phases of this study.

The Self-Directed Learning (SDL) closed-ended questionnaire is adopted in the current study as a validated questionnaire developed according to the theory's principles (Conner, 2012; Stewart, 2007). However, slight changes were made to the number and wording of items in order to make it suitable for the aims of this study. An English version of the questionnaire was ready (see Appendix 1). According to Oppenheim (1992), closed-ended questions help the researcher to ask several questions covering many areas that are related to the issue under investigation within a short time compared to open-ended questions. Oppenheim (1992) indicated that closed-ended questions have various advantages. They are low cost in both time and money compared to other methods, the responses are more likely to be quick and from many individuals, participants can fill the questionnaires at a time and place convenient for them, and data analysis of closed questions is easier than open-ended questions. Oppenheim (1992) added that closed-ended questions give the chance for group comparisons, which is needed in this study in order to compare undergraduate students with different variables, such as their age, year of study and field of study.

Although closed-ended questions have many advantages, Denscombe (2010) stated that there are some disadvantages of this type of question. For example, respondents may face boredom when completing the questionnaire if there is a large number of questions. In addition, there is a lack of opportunity to clarify questions, which might lead to misinterpretations. Furthermore, closed questions do not allow participants to write any further information or express

their views more fully, which is regarded as one of the disadvantages of closed questions. I believe, however, that adopting interview and text diaries as further research methods in this study helps to overcome the disadvantages of closed-ended questions, because both methods provide participants with the opportunity to express their opinions freely through open questions.

The questionnaire was designed to be self-completed by the participants with clear instructions to help them complete all the questions. It was provided with a brief letter explaining the purpose of the questionnaire and assuring the confidentiality and anonymity of the participants' information (Wellington, 2000). The final version of the questionnaire was divided into four sections covering several aspects. The first section covered demographic information including the year of study and subject in order to understand the differences between the different groups of participants. The second section contained closed multiple choice questions and dichotomous questions about the use of social networking sites generally, such as the social network accounts they use, the purposes for which they use SNSs, and their level of experience and skill in using SNSs. The third section consisted of Likert scale items about self-directed learning. The last, and main, section in the questionnaire sought information about use of SNSs for self-directed learning. It was divided into four sub-sections that were informed by the Self-Directed Learning Model. All four sub-sections contained closed questions and they consisted of several items. The sub-sections were: personal factor (PF) 15 items; learning process (LP) 17 items; contextual factor (CF) 15 items; and learning outcome (LO) 4 items. The items of all sub-sections were measured by a Likert scale that ranged from strongly disagree to strongly agree. The questions and items of the

questionnaire were drawn from previous questionnaires and the literature review. For detailed information on questionnaire items and questions see Appendix 2.

4.3.1.2 Interview

The interview is used in this study as the second data collection method following the questionnaire. The interview was defined by Janesick (1998, p.30) as “a meeting of two persons to exchange information and ideas through questions and responses, resulting in communication and joint construction of meaning about a particular topic”. The purpose of using this instrument as a main method of data collection in this study is due to its ability to study human behavioural events and real life contexts. It is also used to probe participants’ insights, thoughts and perceptions about aspects of the subject and the factors that influence these aspects (Yin, 2009). Wellington (2000) added that interviewing individuals, regardless of their ages, can provide the researcher with an opportunity to explore the interviewee’s perspectives, thoughts and feelings that can be hard to observe. Wellington (2000) and Cohen, Manion, and Morrison (2000) argued that interviews can enable one to discover the ‘multiple truths’ of a social condition. Therefore, I believe that adopting the interview as the most important method in this case study research will help me as a researcher to collect more valuable data about the students’ use of SNSs for personal learning and obtain an entire picture of the complex relationships among factors.

Importantly, Cohen et al. (2000, p.267) argued that the interview “is not simply concerned with collecting data about life: it is part of life itself”. This means that the interview is not only for the collection of data that is needed in the study, but

it can also motivate both interviewer and interviewee to discuss the subject in an interesting way, create a direct interaction among them and allow interviewees to explain how they see situations from their own viewpoints, which allows the researcher to construct meanings from the participants' answers. Furthermore, Oyaïd (2009) stated that one of the most important features of the interview is that it helps the researcher to be flexible and to bring out points that are comprehended wrongly by the participants. Oyaïd (2009) added that the interview is different from other methods that seek to collect information about complex issues, such as in the present study that involves complex relationships between self-directed learning factors such as learning process, personal, learning outcomes and contextual factors and how these elements influence students' use of SNSs to promote their personal learning.

Yin (2009) confirmed that adopting the interview in conjunction with other research methods can help the researcher to avoid the problem of bias and poor expression. Cohen et al. (2000) stated that combining the interview method with another research method also allows the interviewers to follow up unexpected results, validates other methods, and goes deeply into the issue in order to gain a clear and comprehensive understanding. Therefore, this study uses the interview in conjunction with questionnaire and text diaries. In the interview, I try to go beyond the questionnaire findings and students' diaries and look more deeply into the students' use of SNSs and the elements that impact on their use of SNSs for personal learning.

However, Oyaïd (2009) and Cohen, Manion, and Morrison (2000) argued that certain points need to be taken into account when adopting the interview as a method in the study. First of all, data analysis and interpretation of interviews

is time-consuming. Secondly, the interview is less reliable than other research methods such as the questionnaire because it does not give the participants complete confidentiality as they are face-to-face with the researcher. Also, the participants' moods and circumstances might affect the interview results. However, I believe that this study avoided these limitations, because it was carried out over a duration of three years, which provided sufficient time for analysis and interpretation of data. I also considered all these issues during the data collection by demonstrating the purpose of the interview to the participants and explaining how their anonymity and confidentiality would be ensured.

According to Robson (2002) and Wellington (2000), there are several different types of interview, but the main three types of interview are structured, unstructured and semi-structured interview. The distinction between these types is explained as follows.

- 1- Structured interview:** This interview type is strictly driven by interviewer who has the control over the interview direction. It is similar to the design of the closed-ended questionnaire as it has predetermined questions in a set order, but it also gives the participants a chance to respond to open questions.
- 2- Unstructured interview:** it is also called non-standardised interview. In this type of interview, there is no set list of questions in specific order, which helps the interviewee to guide the conversation and go in any direction within the area that is discussed.
- 3- Semi-structured interview:** This interview type combines features of the structured and unstructured interview. The semi-structured interview can help the researcher to overcome the limitations of both structured and unstructured interviews. The schedule of this type specifies key areas but not in a fixed order, and it is based on the interviewer that

allows him or her to raise further questions during the interview (Alzaydi, 2010).

In this study, I used a semi-structured interview as the first phase of the qualitative data collection. It is argued by Grix (2004, p.127) that, in this type of interview, “the interviewer has in mind a number of questions that you wish to put to interviewees, but which do not have to follow any specific, predetermined order”. This type seems to be more widely used than others because it gives participants the opportunity to express their thoughts, beliefs and views more freely (Flick, 2006). Thus, the semi-structured interview helped me to explore the students’ perceptions about the use of SNSs for personal learning through open questions. Radnor (2001) added that a feature of the semi-structured interview is that it can proceed smoothly and gives the interviewer the opportunity to ask emergent questions at an appropriate moment. In contrast to the ‘structured interview’, the semi-structured interview provides interviewees with the chance to express their experiences by using their own words and expand in expressing priorities in their own cases. Moreover, Wellington (2000) pointed out that it is difficult for some methods, such as the questionnaire, to receive a complete answer to some questions. In contrast, the semi-structured interview is able to provide the researcher with sufficient explanation of ambiguities by using probes, such as “tell me more about that”. Drever (2003) added that the semi-structured interview allows the interviewer to get high-quality data through asking participants to clarify any vague or misunderstood points.

This type of interview plays a significant role in creating motivation and engagement between the interviewer and interviewee which helps to produce

the rich information needed about the issue (Alnesyan, 2012). Therefore, I argue that the interviewees' motivation supported me to elicit participants' experiences, perceptions and views about the use of SNSs for personal learning and to identify the factors that influence their use of SNSs to develop personal learning.

The interview schedule of this study contained open-ended questions in order to explore the participants' perceptions and experiences about the use of SNSs to develop their personal learning. Its questions were based on the questionnaire findings and come from the literature review about the use of SNSs for learning in higher education and Self-Directed Learning theory. Its schedule covers four areas (see Appendix 4). After writing the interview schedule in English, I translated it into Arabic, the participants' native language, and checked for any misunderstandings or phrases needing to be clarified. The final version of the Arabic interview schedule can be seen in Appendix 5.

4.3.1.3 Text diary

Text diary is described as a reflection tool that helps individuals to summarise, analyse and assess what they have learned over a period of time. It was used for centuries for private consumption, but it is used now commonly as a research approach for sharing the diarists' perspectives with their investigators and as a basis for personal learning (Jefferies, 2011). In this study, I use this method as a supportive method for the interviews in order to gain information about the participants' thoughts, experiences and behaviours during the actual stages and conditions of personal learning.

Wellington (2000, p.120) argues that diaries are better than other research methods and they “are especially suited to those who prefer to write their thoughts and perceptions as opposed to being questioned orally or observed in situ”. The current study used text diary as an appropriate method towards answering the research questions through offering better conditions for the participants who prefer to write their behaviours, thoughts, and experiences about the use of SNSs for personal learning. Furthermore, Wellington (2000) stated that, in order to get deeper understanding about the diarists’ thoughts, it is better for diaries to be combined with interviews. Therefore, adopting diaries as a method after conducting the interviews helped me significantly to get rich data about the factors that influence the students’ use of SNSs and particularly the learning process factor. It also gave me important insights into the students’ reflections on their actual use of SNSs, such as how they planned, monitored and evaluated their level of education. It also provided me with valuable information about the relationship between the students’ behaviour or experience and their actual use of SNSs to develop their personal learning.

There are several features of text diary as a method of data collection. According to Lewis and Massey (2004), the most important advantage is the short interval between the activity that was done by participants and writing their diaries. This feature is addressed in this study by informing the students about the significance of immediacy between their action of using SNSs for personal learning and writing their diaries. In addition, Wheeler and Reis (1991) stated that the text diary differs from other methods of data collection in that it can capture very simple events that might be disregarded by other research methods because these events might be seen by participants as very

unimportant. Thus, I believe that the text diary helps the interview by providing more data that might not be introduced or discussed by the participants during the interview due to its 'assumed' insignificance. Furthermore, the text diary is an effective method to study phenomena that are inaccessible to the researcher because either this phenomenon might be internal or the physical presence of the researcher might negatively affect the phenomenon (Elliott, 1997). As this study investigates the factors that influence the use of SNSs to promote personal learning, it is not possible for me to get specific data about the actual processes that the participants perform when they learn personally. Therefore, the text diary is an appropriate method because it offers students the opportunity to be away from the physical presence of the researcher in order to have the opportunity to write freely about their use of SNSs for personal learning. It will also help the participants to write their reflections of the planning and monitoring of private activities and how they evaluate their performance.

On the other hand, there are some limitations of using the text diary as a research method, such as the issue of its validity (Jones, 2008). Alebaikan (2010) stated that, however, this issue can be solved through combining the text diary with other research methods to increase the validity of the diary. Thus, I argue that the text diary method is used in this study as an assistant instrument for the interview which allows for triangulation to increase the validity of this method.

Wellington (2000) argued that there is no specific design for the diary in educational research. Lewis and Massey (2004) added that the researcher can design the form of the diary based on the aims of the study and the activity. In this study, the form of the text diary is designed to offer the diarists scope to

write a reflective diary each week for a month about their actual use of SNSs to develop personal learning through the three steps of the learning process of self-directed learning (planning, monitoring and evaluation). Through the weekly diaries, the participants are expected to write notes about these stages. Firstly, in the planning stage, diarists are asked to write about their plan, what activity and which type of SNSs they used in the week. In the second stage, they are asked to write a diary about how they monitored their progress that week. Thirdly, they are asked to keep a diary about how they evaluated their learning outcomes and what changes they could make to improve their personal learning that week. The final version of the diary can be seen in Appendix 6.

Toms and Duff (2002) indicated that a clear design for the diary will assist the participants to write their experiences easily. The format of the current diary is designed simply in order to enhance the quality of data obtained from the participants. In designing the form of the diary, I avoided leading statements that might impact on diarists' views and perspectives about using SNSs for personal learning. Furthermore, Bolger, Davis, and Rafaeli (2003) reported that electronic diary forms, such as software and digital tools, have become more popular in educational research in the last decades than traditional paper diaries because they allow for larger quantities of their data to be analysed. The Survey Monkey website was used in this study as a digital tool to complete electronic diary forms.

4.3.2 Ethical Considerations

Ethics and morals are seen as a significant aspect of both educational and scientific research. Wellington (2000) asserts that ethical issues need to be

considered more carefully when conducting educational research as it concerns human beings. Wellington (2000) added that the researcher should take ethics into account from the beginning of the research and continue through all the research phases. Therefore, the researcher and all others involved in this research complied with the standards advised by Exeter University and the British Educational Research Association (BERA).

The ethical rules and participants' rights were taken into consideration in this study. Firstly, Certificate of Ethical Research Approval was filled by myself, and then was checked and approved by both of my supervisors and the Chair of the School's Ethics Committee of Exeter University. In this form, I gave a brief description of the study, research questions, methods, participants, sample and the ethical issues that needed to be taken into consideration throughout the period of data collection and in the later stages (see Appendix 7). Secondly, in order to get permission to carry out the current study at Hail University in Saudi Arabia, an official letter from the university administration giving approval to conduct this study is needed. I obtained agreement from the University of Hail administration to access the university to distribute the questionnaire, interview the participants, collect text diaries, and to explicitly name the university in the study (see Appendix 8).

BERA (2011) stated that obtaining the consent form from participants is very important before conducting a study. BERA (2011) adds that the consent form should inform the participants about the aims of the study, its outcomes and all procedures that they could undergo when participating in the study. In the consent form (see Appendix 9), I explain the goal of the study, and the agreement of the participants to participate in this study was obtained after

reading the information letter sent to them prior to their participation (see Appendix 10). This letter informs students about using audio-recording during the interview and asserts that the recording will be kept securely and I will transcribe and translate the interviews myself.

During the data collection, I informed the participants of their right to withdraw from the study at any time or for any reason. Confidentiality and anonymity are ethical issues that need to be considered in research. Cohen, Manion, and Morrison (2007) see confidentiality as the main moral issue. Miller and Brewer (2003, p.97) say that, in confidentiality, “the researcher can match names with responses – for example, a face-to-face interview –but ensures that no one else will have access to the identity of the respondent”. In order to maintain the confidentiality of my participants and cover their identities, pseudonyms are used for participants’ names. In addition, Miller and Brewer (2003, p.97) say that anonymity is achieved when “the researcher will not and cannot identify the respondent”. The names of the participants are not required in the questionnaires, which led to receiving most of the participants’ questionnaires anonymously.

The other ethical issue that needs to be considered in research is participants’ harm. The researcher must be fully responsible when conducting the study for protecting participants throughout data collection in order to avoid any harm or unnecessary risks they might face (BERA, 2011). It is clear that, as the purpose of the current study is to explore the use of SNSs to develop personal learning and seek students’ views about this issue in depth, the participants will not be involved in any situation which might be harmful to them and their personal information will be kept confidential and safe in secure files. It was also

explained clearly to the participants that the participation in the study was completely optional and not related to their study programmes and assessment at any way. Rather than harm, the study could be very beneficial in terms of the contribution to knowledge where several parties would benefit from its finding including students themselves.

Furthermore, Radnor (2001) pointed out that it is necessary for researchers to show respect to participants. Thus, I respected all the participants' choices regarding the agreement or disagreement to participate in any phase of the study. I also respected their choices of the process and conditions of data collection. For example, I received many respondents who showed their interest to participate in the interview and they did not have a problem in using the audio-recording during the interview. I also asked them to choose the best mode of interviewing, whether face-to-face, telephone or Skype, and I absolutely respected their choices. However, some participants declined to take part in the interviews and text diaries. I respected their choices and thanked those participants who did participate in the interviews and text diaries.

4.3.3 Translation of the questionnaire, interview, text diary:

The questionnaire, interview and text diary schedules were written in English in order to be discussed with my supervisors and for validation purposes. They were then translated from English to Arabic and reviewed by a specialist in the field of translation and PhD peers who specialized in translation. The main reason for translation of the questionnaire is that the native language of the participants is Arabic, which helps them to respond to the questionnaires easily and accurately. The interview and text diary schedules were also translated into Arabic and their questions were clear to the participants.

4.3.4 Practical procedures of data collection

Detailed information about the procedure of data collection is provided in this section. It is presented in detail in the following six stages:

4.3.4.1 First stage: Obtaining the relevant permissions

There were three permissions needed before collecting the data in this study. Firstly, a Certificate of Ethical Research Approval from the Graduate School of Education at the University of Exeter was applied for in order to avoid any ethical issues that the study may face. A copy of this certificate is provided in Appendix (7). The second important permission was approval from the University of Hail to collect the data from the participants. I gained the approval from the administration of the University of Hail in order to carry out the current study at the university and a copy of this approval is provided in Appendix (8). The third permission was the participants' approval. Participants who agreed to take part in the study signed the consent form (see Appendix 9).

4.3.4.2 Second stage: pilot study

Before carrying out the study, it was important to ensure whether the research design and instruments needed to be reviewed. The pilot study is a way that gives researchers the opportunity to get some experiences before conducting their study, which can help them to avoid problems that might be faced during conducting the study (Cohen, Manion, & Morrison, 2007). The pilot study was defined by Robson (2002, p.185) as “a small-scale version of the real thing, a tryout of what you propose so its feasibility can be checked”. The aim of the pilot study is to help the researchers “to test and refine one or more aspects of a final study, for example, its design, fieldwork procedures, data collection instruments or analysis plans. In this sense, the pilot study provides another

opportunity to practice. The information from a pilot study can range from logistical topics (e.g. learning about the field time needed to cover certain procedures) to more substantive ones (e.g. refining a study's research questions.)" (Yin, 2010, p.37).

The pilot study provided me with several advantages. Firstly, it helped me to ensure that there was compatibility between the research questions, its methods and sample, as agreed by Alnesyan (2012). Secondly, it helped me to know the time required in order to complete the questionnaire, conduct the interview and answer the diary questions. The pilot process also allowed me to become more familiar with the research instruments, data collection and analysis. In addition, conducting the pilot study helped me to develop the wording of the questionnaire, to verify questions in the interview schedules and to make sure that all the diary's questions were fully understood by the participants.

The questionnaire was examined at this stage to ensure its validity and reliability. Validity of the questionnaire was defined by Pallant (2010, p.7) as "the degree to which it measures what it is supposed to measure". Although the closed-ended questions and the items of the SDL questionnaire had been endorsed by previous researchers (e.g. Conner, 2012; Stewart, 2007), its final version was checked and reviewed by experts from the Graduate School of Education at the University of Exeter, including my supervisors, in order to ensure its validity.

Additionally, ensuring the reliability of a scale was a fundamental stage to be taken. Pallant (2010, p.6) defines reliability as "how free it is from random error".

The internal consistency is regarded as one of the most important methods of measuring the reliability of a scale. This method is defined as “the degree to which the items that make up the scale are all measuring the same underlying attribute” (Pallant, 2010, p.6). The most prevalent way of measuring the reliability of a scale is Cronbach’s coefficient alpha that is available in the SPSS statistical package. Pallant (2010) states that the value of alpha is in the range from 0 to 1 and that higher than 0.7 indicates sufficiently high reliability. The internal reliability of the Self-Directed Learning items has been confirmed by previous research such as Stewart (2007) and Conner (2012). Conner (2012) confirmed that the 25 items of the Personal Orientation section of the Self-Directed Learning Scale were reliable (Alpha = 0.90).

Since all the values of alpha were greater than .7, all the five scales were sufficiently reliable to be used in this study. However, in the light of feedback obtained from the pilot study (see the next paragraph) slight changes were made to the questionnaire used in this study. Therefore, the SDL questionnaire was tested again by Cronbach’s alpha in order to verify its reliability after the main data collection (see quantitative analysis chapter).

After translating the questionnaire from English to Arabic, the pilot questionnaire was sent to an administration officer at the University of Hail in the department of female students and she sent it to students from both social science and science colleges. 29 completed responses were received and two of these respondents agreed to participate in the pilot interview and diaries. On the pilot questionnaire, the question “Indicate which of the following social networking sites you use”, gave choices of Facebook, Twitter, Blog, Flickr, Myspace and ‘others’. However, the responses showed that the majority of

participants added Snapchat and WhatsApp in the choice of 'others'. Thus, in the final Arabic version I included both social networking sites (Snapchat and WhatsApp) as 'other' choices in this question (see Appendix 3).

The interview and diaries pilot were also conducted at this stage. The interview questions were updated based on the questionnaire findings. For example, many participants in the pilot questionnaire used Twitter, WhatsApp and Snapchat more than other social sites in their personal learning. So, in the final version of the interview, I added this question: "I noticed that in the questionnaire a lot of students are using Twitter, WhatsApp and Snapchat. Can you give an example of why do you use them in education? Can you explain your view more clearly?" In addition, on the item in the questionnaire that stated "I feel confident finding information when I use SNSs for personal learning", the majority of participants chose "strongly agree", which led me to ask them more deeply about this issue.

After updating the interview questions and having them checked by my supervisors, the interview schedule was translated into Arabic and I conducted the pilot interview with the two volunteer participants. This enabled me to check the interview schedule after translation and to find the expected time needed for the interview. The participants believed that the interview questions were simple and understandable and the average interview lasted between 30 minutes and one hour. However, the participants recommended that I add questions related to the study field. So, I added this question: "Regarding your subject, do you think SNSs are important for your subject or for all subjects? Can you explain more your opinion?" For the final version of the Arabic interview schedule see Appendix 5.

Moreover, I sent the pilot diary, that had been reviewed by my supervisors and translated into Arabic, to one of the participants to obtain her feedback on the clarity and relevance of the questions in the diary schedules. After this, the Arabic diary schedule was ready for data collection (see Appendix 11).

4.3.4.3 Third stage: administration of the questionnaire

During this stage, the final Arabic questionnaire (see Appendix 3) was ready in Survey Monkey website and it was sent to the students through the university's official accounts and the students' forum. On the first page of the online questionnaire, there was a letter giving the participants a brief explanation of the SDL questionnaire in addition to their rights, highlighting that the questionnaire was optional and not related to their courses.

I received their responses through the Survey Monkey website and then I imported the data to SPSS software, which was the statistical analysis package that I used in this study. The total number of students at the University of Hail in these colleges was 19,068, from whom I received 522 responses, of which 269 were fully completed.

4.3.4.4 Fourth stage: conducting the interviews

After updating the interview questions based on the questionnaire findings and the pilot interview, the final version of the Arabic interview schedule was ready (see Appendix 5). Fielding and Fielding (1986) stated that one benefit of questionnaires is to help the researcher to select participants for subsequent qualitative methods such as interviews. At the interview stage, I contacted the participants who had been asked at the end of questionnaire if they were interested in taking part in the interview, through their details provided such as

telephone numbers or email addresses, and provided them with information about the semi-structured interviews. Some participants were interviewed face-to-face and others by telephone, according to their preference. All of them were female, 13 from scientific colleges (e.g. Medical College, Dentistry College and Science College) and 14 from humanity colleges (e.g. Education College and Art College).

I paid great attention to some points before and during the interviews. For example, I contacted the participants before the interview day in order to remind them about our appointment and confirm the time of the appointment. I also asked the participants the best way of conducting the interview (whether by telephone or face-to-face). Most were happy to carry out the interviews face-to-face, and only six preferred doing the interview by telephone because they felt shy when talking face-to-face with an interviewer and unable to speak freely. Regarding these six participants, I respected their choice and their view, but I met them before carrying out the interview at the university in order to get their permission by signing the approval form.

Table 4-1: Summary of the interview data

	Participant Pseudonym	College Category	College	Year	Duration of interview	Mode of interview
1	Amina	Scientific colleges	Medicine	2	51:18ms	Face-to-face
2	Ohood	Humanities colleges	Education	5	47:35ms	Face-to-face
3	Wreef	Humanities colleges	Education	1	1:2hs	By phone
4	Sara	Scientific colleges	Medicine	4	1:5hs	Face-to-face
5	Ghadeer	Scientific colleges	Medicine	1	43:4ms	Face-to-face
6	Faiza	Humanities colleges	Education	2	42:12ms	Face-to-face

7	Adhra	Humanities colleges	Education	1	39: 54ms	Face-to-face
8	Wesam	Scientific colleges	Dentistry	3	29:5ms	Face-to-face
9	Monirah	Humanities colleges	Education	5	47:42ms	Face-to-face
10	Amani	Humanities colleges	Education	4	36:28ms	Face-to-face
11	Hasna	Humanities colleges	Education	5	41:27ms	Face-to-face
12	Marwa	Humanities colleges	Education	5	1:6hs	Face-to-face
13	Reham	Humanities colleges	Arts	2	33:32ms	Face-to-face
14	Asma	Humanities colleges	Education	1	36:2ms	Face-to-face
15	Noura	Scientific colleges	Computer	5	46:49ms	By phone
16	Abrar	Scientific colleges	Science	3	26:44ms	Face-to-face
17	Aseel	Humanities colleges	Education	5	31:53ms	Face-to-face
18	Malak	Humanities colleges	Education	3	35:7ms	Face-to-face
19	Maysa	Scientific colleges	Computer	5	50:29ms	By phone
20	Bedoor	Scientific colleges	Science	3	38:2ms	Face-to-face
21	Mody	Scientific colleges	Business	2	43:40ms	By phone
22	Mariam	Humanities colleges	Education	5	28:45ms	Face-to-face
23	Eman	Humanities colleges	Education	5	35:20ms	Face-to-face
24	Sadiya	Scientific colleges	Business	5	73:53ms	By phone
25	Maha	Scientific colleges	Applied Medical Sciences	4	48:16ms	By phone
26	Mai	Scientific colleges	Applied Medical Sciences	4	40:14ms	Face-to-face
27	Mona	Scientific colleges	Applied Medical Sciences	4	42:26ms	Face-to-face

Moreover, during the interview I asked the interviewees to switch off their mobile phone and I closed the door of the interview room in order to avoid any noise that might interrupt the interview. In addition, snacks and water were

offered during the interview to sustain the interviewees to continue. The majority of the interviews took about one hour.

During both modes of interviews (face-to-face and by phone), I used a digital voice recorder. Yin (2009, p.109) argued that the digital voice recorder provides the researcher with “a more accurate rendition of any interview than any other methods”. Esterberg (2002) argued that it helps the researcher to listen carefully to interviewees and their answers. It also enables the interviewers to go back and listen to the interview in order to check some points if needed. However, taking the permission from the interviewees to use the audio recording during the interview is very important (Yin, 2009). Consequently, I asked all interviewees if they minded recording the interview in order to avoid any stress might appear during the interview and make sure that the interviewees are comfortable during using audio recording.

4.3.4.5 Fifth stage: keeping diaries

At the end of the interviews, I asked the interviewees if they would keep diaries, and I explained the aim of using text diaries as a method of data collection and its importance for my study. I also showed them an example from the pilot study of how they could write their diaries and then I took their personal details to contact them to send the text diaries. I selected the first 10 participants in the interview from both colleges (social science colleges and scientific colleges) and agreed to keep diaries during a three weeks period.

Survey Monkey was used as an electronic tool to send the diary form to my participants. At the beginning of each week, I sent the link to the diary form via WhatsApp to my participants, and then I reminded them by a message to write

their diaries at the end of each week. In the first week, only one of the ten participants apologized for not participating in writing diaries because she was busy with exams. At the beginning of the second week, I sent the diary form for the second week to all nine participants and I received eight completed responses at the end of the week, while in the final week six out of 10 diaries were completed.

4.3.5 Data analysis

Before explaining the data analysis procedure, I present the process of checking the questionnaire's reliability and the response rate.

4.3.5.1 Reliability test

The reliability of the scales was assessed by Cronbach's alpha. Hinton, McMurray, and Brownlow (2004) stated that there are four different levels of reliability: outstanding (0.90 - 1.0); high (0.70 - 0.90); average (0.50 - 0.70) and low (0.00 - 0.50). The values of Cronbach's alpha for the corrected items on the questionnaire were computed for each scale, as shown in Table 4-2 below.

Table 4-2: Reliability of the questionnaire scales

Name of scale	Number of Items	Cronbach's Alpha Coefficient
Self-directed learning (SDL)	13	.860
Social networking sites personal learning factor (PF)	14	.954
Social networking sites learning process factor (LP)	17	.924
Social networking sites contextual factor (CF)	15	.841
Social networking sites learning outcomes factor (LO)	3	.733
Total	62	.970

It can be seen that the values of alpha in this study ranged from .733 to .954, which meant that all scales were above the 0.7 level. Overall, the value of alpha for all the 62 items was .970, which is considered very high. This indicates that the scales were reliable and would give consistent results.

4.3.5.2 Response rate

The questionnaire in this study was distributed by Survey Monkey as a digital tool to collect the quantitative data. Compared to traditional paper methods, the online questionnaire has some useful features such as short transmission time, less time for data entry, and less cost of delivery (Fricker & Schonlau, 2002; Groves, 1989). They argued, however, that there are some challenges that might face the online questionnaire. For example, lack of accessibility, which means that some participants do not have good enough internet access to take part in a study. Moreover, a low response rate is another challenge that may negatively affect the final result.

It is worth mentioning that the response rate for online questionnaires in general is estimated to be about 11% lower than the traditional questionnaire (Manfreda, Bosnjak, Berzelak, Haas, & Vehovar, 2008). Thus, the response rate in this study was very low (3%). However, Pinsonneault and Kraemer, (1993, p.94) argued that “The poor response rate is particularly troublesome for descriptive studies because their usefulness lies in their capacity to generalize the findings to a population with high confidence. Such low response rates jeopardize any attempt to generalize findings in an adequate way”. However, I believe that as this study is mainly qualitative in nature and does not aim to generalise the results, the response rate is not very crucial and even the low

response would provide the information needed about the issue before moving on to the main phase of the study.

4.3.5.3 Data analysis procedure

Data analysis is an extremely important phase that needs to be considered by the researcher. It was described by Bogdan and Biklen (1996) as a process of evaluating data in order to discover useful information. It means that the researcher can organise the data in a way that allows himself or herself to reveal what is important and to understand the patterns more deeply (Hatch, 2002). As the current study used questionnaires, semi-structured interviews and text diary methods to collect the data, this data was analysed quantitatively and qualitatively. So, in this section, detailed information about the data analysis of each method of data collection is presented. The table below shows the types of data collected through the methods of data collection.

Table 4-3: Types of data collected

Methods of data collection	Sort of data	Data collected
Questionnaire	Quantitative data	<ul style="list-style-type: none"> • Demographic data items • Closed-ended questions
Interview	Qualitative data	<ul style="list-style-type: none"> • Recording interviews • Transcripts
Text diary	Qualitative data	<ul style="list-style-type: none"> • Frequent open-ended questions

4.3.5.3.1 Quantitative data analysis

After obtaining the quantitative data from the SDL closed-ended questionnaire, the next step was coding the data. The questionnaire data were entered into

the computer using the Statistical Package for Social Science Software (SPSS, version 22). The data was already coded as it was imported from the Survey Monkey data base as SPSS files. However, I checked them and made some changes to the codes to make it more accurate and appropriate for the analysis and presentation in English.

Through this stage, raw data was transformed into numerical data by using a coding sheet that is available in SPSS. For example, for the subject variable, 'science subject' was given the code (1) while 'humanities subject' was given the code (2). The completed questionnaires were numbered from 1 to 522 through the ID numbers available in SPSS. Moreover, most items of the questionnaire were positively worded and scored according to Likert scale ranging from 1 strong disagreement, 2 disagreement, 3 neither agreement nor disagreement, 4 agreement, to 5 strong agreement. For instance, if the participants agree with items they have a positive view and a high score. However, 4 items were negatively worded (2, 6, 22, and 46) so I reversed the scoring on these items. This means that if the participants disagree with items they will have a positive view and the items will be scored high.

Norusis (1990, p.1) confirmed that "SPSS is a powerful, comprehensive, and flexible statistical and information analysis system", which can enable the researcher to "score and to analyze quantitative data quickly and in many different ways" (Bryman & Cramer, 1999, p.16). The quantitative data were saved in the researcher's personal computer in order to maintain the confidentiality of the data and allow easy access to them whenever needed.

The questionnaire data were analysed by descriptive statistics. The data regarding types of SNSs were examined in detail in order to provide background information about students' use of social networking sites and factors that influence their use of these sites for personal learning. This would also inform me later, in the analysis of the qualitative findings, about the important factors that influence the use of SNSs to promote students' personal learning.

Statistical tests were carried out in this study (explained in more detail in the next chapter) in order to understand the relationship between the use of SNSs for personal learning reasons and for self-directed learning. A Kolmogorov-Smirnov normality test was first employed to see whether parametric or non-parametric statistics should be used. If the responses were normally distributed, a t-test would be used and, if they were not normally distributed, a Mann-Whitney U test would be used to compare the differences between two different groups (e.g. academic subject). Mann-Whitney U test was performed to investigate the differences between the influences of these factors on the use of SNSs according to students' subjects and year of study, which could inform the qualitative data analysis later. Statistical tests are presented in greater detail in the quantitative findings chapter.

4.3.5.3.2 Qualitative data analysis

As mentioned in the previous section, semi-structured interview and text diaries were adopted as the main methods in this study, and for these, qualitative data analysis was conducted. The aim of qualitative data analysis is to identify themes, reveal relationships, make interpretations, make clarifications and facilitate understanding of the phenomenon being studied

(Sargeant, 2012). This means that the process of qualitative data analysis allows raw data that was previously collected to be rebuilt by the researcher, to be further organised and classified with the purpose of answering the research questions (Yin, 2003). In addition, Creswell (2007, p.148) stated that qualitative data analysis “consists of preparing and organizing the data (i.e. text data as in transcripts or image data as photography) for analysis, then reducing the data into themes through a process of coding and condensing the code and finally representing the data in figures, tables or discussions.” Cohen, Manion, and Morrison (2000) stated that there is no specific process for analysing qualitative data and the researcher can choose the most appropriate process.

According to King, Cassell, and Symon (1994) and Creswell (2007), in qualitative research, there is no dichotomy between the data collection and its analysis. This point of view is supported by Cohen, Manion, and Morrison (2000) who argue that, in qualitative studies, the researcher can collect the data and analyse it at the same time, which is the antithesis of quantitative studies where the data is collected first and later analysed. Therefore, when I was collecting the qualitative data in the interviews and text diaries, I was doing an initial analysis to give me a general insight into the issue under investigation. Furthermore, as qualitative research is interpretive research, the researcher can “make a personal assessment as to a description that fits the situation or themes that capture the major categories of information” (Cassell, 2012, p.238). Therefore, when I analysed the qualitative data in this study, I brought my own perspective to the interpretation taking the context of the study and its theoretical framework into account.

As the current study adopted semi-structured interview and text diary methods to explore the use of SNSs to promote personal learning by Saudi University students and to explain in-depth the factors that influence their use of these sites for personal learning, thematic analysis was used. Although there are different types of analyses, such as grounded theory analysis and hermeneutic analysis, thematic analysis was used as a qualitative analysis approach “for identifying, analysing and reporting patterns (themes) within data” (Braun & Clarke, 2006, p.79). The reason for choosing this approach was to enable me to “produce an insightful analysis that answers particular research questions” (Braun & Clarke, 2006, p.97). In other words, the thematic analysis allowed me to draw interpretations from the data collected from the participants, identify factors or elements that influence the students’ use of SNSs for personal learning, and give rich descriptions of the participants’ perceptions and views about the issue.

Braun and Clarke (2006) argue that the key feature of thematic analysis is its flexibility, which enables the researcher to choose one of its approaches. This means that themes within data can be identified in an inductive ‘bottom up’ way (Frith & Gleeson, 2004) or in a deductive ‘top down’ way (Boyatzis, 1998). The former means that the themes identified are robustly associated with the data itself, while the latter means that the themes identified are driven by the researcher’s theoretical interest in the area (Patton, 1990). Therefore, due to the study’s purpose and its need to have greater insight into the issue, the inductive approach is used. This is because the inductive approach allows “research findings to emerge from the frequent, dominant or significant themes

inherent in raw data, without the restraints imposed by structured methodologies” (Jugder, 2016, p.3).

In addition, several authors suggest different inductive thematic analysis steps although they all follow the same main ideas and processes. Braun and Clarke (2006) suggest the following six detailed steps: familiarising yourself with your data; generating initial codes; searching for themes; reviewing themes; defining and naming themes; and producing the report. The current study followed Braun and Clarke’s (2006) model of thematic analysis as a well-defined well-organised and detailed model.

First step: Familiarising myself with the data

An important step to be taken before analysing the data is to familiarise oneself with the data through transcribing it. Transcription is defined by Creswell (2012, p.239) as “the process of converting audiotape recordings or field notes into text data”. In the current study, I transcribed the verbal data collected from the interviews into written texts by myself. I also listened to the audio recorded interviews many times so as to ensure the accuracy of the written data. According to Braun and Clarke (2006, p.88), “the time spent in transcription is not wasted, as it informs the early stages of analysis, and you will develop a far more thorough understanding of your data through having transcribed it”. Thus, I argue that transcribing the verbal data did not only inform the early steps of analysis, but it also developed my comprehension where I gained more insights about the data. After transcription, it is useful for the researcher to read and re-read the data and summarise it before the formal analysis (Creswell, 2012; Lacey & Luff, 2007). Thus, at this step, I saved the transcribed data in a

secure place in my personal computer and then I read my written data several times and made memos about general ideas before moving on to the formal analysis.

The transcripts were then exported to a computer software. There are different types of computer software that can be used to analyse the data qualitatively such as NVivo and MAXQDA. In the current study, I used MAXQDA as a tool of data analysis. I chose this software because it has many features that differ from the other software. One of its advantages is that it is not limited to certain languages but it supports Arabic, the language of my participants. Vallance and Lee (2005, p.2) argued that “working in the original language is methodologically advantageous and can increase the validity claims of the research outcomes”. In other words, using the participants’ original language when analysing the data can increase the study’s validity and trustworthiness, because the participants use expressions, whether verbal or non-verbal, that are regarded as a part of the context that needs to be taken into account. Vallance and Lee (2005) argue that translating all data into English may lead to losing its accurate meaning, power and context. Therefore, only examples of the interview transcripts were translated from Arabic to English (see Appendix 11). Vallance and Lee (2005, p.5) confirmed this point by saying that:

Since only those passages selected for the written paper need to be translated into English, the resources of creativity and cultural situated-ness are concentrated on these relatively few passages. Hence, these selected passages can be translated into English with full regard to the meaning that will be conveyed to English speaking readers.

The interview and diary data were imported to the MAXQDA software as two different files. In the interviews file, the raw data were divided into two groups

according to academic subject area. For example, students who were in Business College, Education College, Art College, Law College and Community College, were put in a group called 'humanities colleges' and students who were in Medical College, Dentistry College, Pharmacy College, Nursing College, Applied Medical Science College, Public Health College, Engineering College, Computer Science and Engineering College and Science College were put in another group called 'science colleges'. The raw diary data were also grouped into two by the same strategy.

Second step: Generating initial codes

The study data were coded after reading the data and becoming familiar with them. Coding is defined by Charmaz (1983, cited in Bryman & Burgess, p.5) as "simply the process of categorizing and sorting data". Creswell (2012, p.243) also described it as "the process of segmenting and labelling text to form descriptions and broad themes in the data". As the themes of the current study are driven by the data itself, the data were coded openly in order to get rich explorations and descriptions about the issue under investigation. Although this study is theoretically driven by SDL theory and other theoretical concepts used within its theoretical framework, I may argue that using open coding (inductive) strategy to generate the codes would enrich the analysis and let the data speak about itself without the limitations of theories. However, SDL theory principles, in addition to affordance and identity and agency concepts, have informed the research process from an early stage including the research design that led to obtaining the current study's data. It also informed my ideas as a researcher and it was used more explicitly in later stages of interpreting the findings and making sense of its meanings as can be seen clearly in the discussion chapter.

Barry (1998) added that coding can be executed manually or by a software programme. Computer-assisted qualitative data analysis software can be beneficial in some ways, such as accelerating the coding process and storing memos so as to promote the analysis and look back to the analysed data if needed. For these reasons MAXQDA software was used.

With regard to generating the codes, I read each interview more than once, considered the meaning of each response, and then coded all extracts that may be relevant to the use of social networks for personal learning, keeping an eye on the research questions at all times during the data analysis. Ultimately, initial codes were generated by an inductive approach (see Appendix 13). During the coding phase, some segments were coded several times. Braun and Clarke (2006, p.89) confirmed this point by saying that “you can code individual extracts of data in as many different ‘themes’ as they fit into, so an extract may be uncoded, coded once, or coded many times, as relevant”.

Third step: Searching for themes

When the initial codes have been prepared and a long list of them generated, the researcher needs to move to a broader phase in qualitative data analysis that is searching for themes within these codes. It is the most important phase in qualitative data analysis, which aims to re-analyse the data at a wider and higher level than codes and to sort the codes into bigger ideas or themes. Braun and Clarke (2006) explained this phase clearly as classifying all different codes into one potential theme and sorting codes that seem to be relevant to each other into the identified themes.

In this phase, and by using MAXQDA software, I started to re-analyse the data and then integrated each piece of data with similar codes into specific themes and sub-themes. I collected all codes that did not belong to certain themes into a 'miscellaneous' theme and discarded a few codes that seemed not to be relevant to my study. It is asserted by Braun and Clarke (2006, p.90) that "some initial codes may go on to form main themes, whereas others may form sub-themes, and others still may be discarded. At this stage, you may also have a set of codes that do not seem to belong anywhere, and it is perfectly acceptable to create a 'theme' called 'miscellaneous' to house the codes - possibly temporarily - that do not seem to fit into your main themes". The final codes and themes can be seen in Appendix 14. It is also very significant to mention that MAXQDA software made the analysis easier and more functional, through allowing me to write notes for each code, extract themes and sub-themes and display all the data in one window at the same time.

Fourth step: Reviewing themes

The phase of reviewing themes came after having a set of initial themes and sub-themes. During this phase, I reviewed all my data, including codes, coded extracts, sub-themes and main themes, and I ensured that each one of these was meaningfully associated with others. While reviewing the data, I noticed that some 'themes' were not really themes either because they did not contain enough data or they had too varied data.

Importantly, reviewing themes involves two levels: firstly, reviewing all coded data extracts for themes; secondly, as with the first level but in relation to the whole data set. Therefore, I read all extracts for each theme and performed

some adjustments to some of the themes that needed to be reworked and then sought for a coherent pattern. After making sure of the pattern, I moved on to the second level of this phase and I reviewed the validity of each theme in relation to the entire data set. During this level, I ensured that thematic maps, themes and sub-themes reflected carefully the meanings in the entire data set. Furthermore, Braun and Clarke (2006, p.91) argued that “in this phase you re-read your entire data set for two purposes. The first is, as discussed, to ascertain whether the themes ‘work’ in relation to the data set. The second is to code any additional data within themes that has been missed in earlier coding stages”. Therefore, I re-read the data set in order to check that all themes were suitable for the whole data and I ascertained that no important data had been missed or left un-coded.

Fifth step: Defining and naming themes

According to Braun and Clarke (2006), phase five begins with defining and refining the themes that will be exhibited for analysis. After reviewing codes, sub-themes and main themes, I came to understand the whole data as a coherent story that told me about each theme and its relationship with the other themes and the research questions. At this stage, I started to define and name themes so as to reach the final version of my thematic map by going back to determine what each theme was about and to organize them into a coherent narrative.

At the end of this stage, I described the scope of each theme in a short sentence and I identified the whole data set as a coherent and consistent story that provided me, as researcher, with a clear understanding of the scope of the

themes and also gave the reader the meaning of what the theme is about. Appendix 15 shows an overview of the final version of the thematic map and Appendix 16 shows codes frequencies and definitions.

Sixth step: Producing the report

When the final version of the thematic map was ready, I started the final analysis of the data and the writing-up of the findings report. In this stage, I changed the order of themes in the thematic map and reworded some of them to improve the narrative of the findings and tell the complicated story of the findings in a narrative way. This also required merging some themes under one bigger title due the similarity between them in order to improve the story line. For example, the three themes (Student's perspective about the use of SNSs for PL, Easiness of using SNS, and the influence of use SNSs on students' learning) were reported in the findings report under the heading 'Affordances of social networks in personal learning'. I also reported the findings under each code without mentioning the code itself as a title to make it more narrative and to improve the story line. The following table provides an overview on how themes from the thematic map were translated into the themes of the findings report.

Table 4-4: Translating themes from thematic map into the findings report themes

	Themes in thematic map	Themes in the findings report
1	Students' belief about the role of SNSs (entertainment, rich resources, motivate communication, for all ages etc)	3 Social networks; students' opinions and purposes of use
2	ST's perspective about the use of SNSs for PL (widen knowledge, additional tool, very important, support course, bring fun, enhance personal learning, face-to-face important etc)	4 Affordances of social networks in personal learning

3	Easiness (availability, trustable information, contacting authors etc)	4 Affordances of social networks in personal learning
4	The influence of use SNSs on students' learning (negative influence) (Challenges)	6 Challenges facing students when using SNS for personal learning
5	The influence of using SNSs on students' learning (positive influence) (facilitate learning, overcome cultural restrictions, video attract students, download materials etc)	4 Affordances of social networks in personal learning
6	Types of SNSs (Instagram, SnapChat, WhatsApp, Twitter)	3 Social networks; students' opinions and purposes of use
7	Personal learning (PL more effective, desire affect PL, different ways of PL, some subject require PL, build confidence etc)	1 The students' perceptions of personal learning
8	Learning process (planning, monitoring, assessment)	5 Skills and strategies of using SNSs for personal learning
9	Contextual factor (students' responsibility, Classes are boring, lecturers' role, foreign lecturers' gender segregation etc)	7 Cultural aspects related to the use of SNSs for personal learning
10	Reasons of use SNSs (because the others use it, lecturers use them)	3 Social networks; students' opinions and purposes of use
11	Student requirements (expect official account of university, need self-learning materials students' and lecturers' responsibilities etc)	2 The sense of agency among students; responsibilities and expectations.

According to Braun and Clarke (2006, p.93), this step aims to “tell the complicated story of your data in a way which convinces the reader of the merit and validity of your analysis”. At this phase, I wrote up the report of the findings as a sophisticated story in a narrative style, which allows the reader to understand my findings more easily. During the writing of the report, I gave enough evidence from the data itself through introducing data extracts as examples in order to support my findings. The data extracts were embedded within an analytic narrative that did not only describe the data as a whole complicated story, but which went beyond that and constructed an argument in the light of the research questions. The interpretation of the findings and

discussion of their meaning in relation to the research questions are discussed separately in the discussion chapter that follows the findings chapter.

4.3.6 The issue of research trustworthiness

Reliability and validity are viewed separately in quantitative research. However, Golafshani (2003) stated that both terms are not treated separately in qualitative studies but are included in one word 'trustworthiness'. Although the current study uses a quantitative questionnaire, it does not seek to test hypotheses or aim to generalise the findings. The SDL questionnaire merely helps the researcher to gain background information about the use of SNSs to develop personal learning by obtaining data from a larger sample of the population than the interview alone, and this could significantly inform the interview schedule and text diaries schedule and highlight aspects that need to be considered in later stages of the study. Therefore, as this study is qualitative in nature, the term 'trustworthiness' is adopted. The term 'trustworthiness' was proposed by Lincoln and Guba (1982, p.3-4) where they argued that "internal validity should be replaced by that of credibility, external validity by transferability, reliability by dependability and objectivity by confirmability". Thus, this study considered these four criteria in detail in order to ensure the quality of the findings and establish trustworthiness.

4.3.6.1 Credibility

Validity was defined by (Wallen & Fraenkel, 2001, p.86) as: "the extent to which an instrument gives us the information we want". Rather than using the term 'validity' from quantitative research, the term 'credibility' is used in qualitative research (Lincoln & Guba, 1985). Credibility is a one of the key criteria that needs to be considered in order to ensure the research trustworthiness

(Graneheim & Lundman, 2004). It seeks for the confidence that can be placed in the truth of the research findings that are obtained from participants' original views (Lincoln & Guba, 1982). Qualitative researchers can ensure the credibility of research findings via following some strategies such as peer debriefing, triangulation, member checks, prolonged engagement and examination of previous research findings.

The peer debriefing strategy can provide “inquirers with the opportunity to test their growing insights and to expose themselves to searching questions” (Guba, 1981, cited in Anney, 2014, p.276). For this reason, my data and findings were reviewed by professionals in my field such as academics and PhD candidates at several academic events and conferences. Feedback from them regarding my research enabled me to increase the study’s credibility. In addition, trustworthiness in qualitative research can be achieved by triangulation methods of data collection (Creswell, 2012; Silverman, 2001). Cohen, Manion, and Morrison (2007, p,141) indicated that “triangular techniques in the social science attempt to map out, or explain more fully, the richness and complexity of human behaviour by studying it from more than one standpoint and, in so doing, by making use of both quantitative and qualitative data”. Therefore, the current study used three data collection methods (questionnaire, interview and text diary), which could develop the quality of the research findings and increase the study’s credibility. Also, participants of the current study were chosen from different academic subject areas (Humanities and Social Science colleges and Science colleges) in order to give the researcher the opportunity to investigate the issue deeply from different points of view.

Moreover, a member check is a very important criterion that confirms the data and increases the quality of the research. Lincoln and Guba (1985, p.236) define the member check as where “the provisional report (case) is taken back to the sites and subjected to the scrutiny of the persons who provided information” (Lincoln & Guba, 1985, p.236). Therefore, after transcribing the data of the interviews and text diaries, they were taken back to the interviewees and diarists to confirm what they had declared during the interview and written in their diaries, and that I had accurately reported their information. Examination of previous research findings was another strategy adopted in this study to increase the trustworthiness of the qualitative research. Shenton (2004, p.69) confirmed that “the ability of the researcher to relate his or her findings to an existing body of knowledge is a key criterion for evaluating works of qualitative inquiry”. The current study and its findings were supported by the literature review and reports of previous studies.

4.3.6.2 Transferability

External validity refers to the extent to which the results of a study can be applied to other situations (Shenton, 2004, cited in Merriam, 1998). Some authors, such as Wellington (2000) and Silverman (2010), have stated that findings from case study research cannot be normally be generalised. However, Tobin and Begley (2004, cited in Anney, 2014) asserted that qualitative studies can use the term ‘transferability’ rather than the term ‘generalisability’ that is more likely to apply in quantitative studies.

Guba (1981) argued that, in order to transfer the findings of studies from one context to other contexts, it is necessary to provide ‘thick descriptions’. This means that qualitative research plays a vital role in providing interpretive

researchers with a lot of detail about the issue being studied and that this aids transferability. As this case study aims to provide a 'thick description', it should be an effective approach that does not only support me to have insights into the issue of students' use of SNSs for personal learning and the factors that influence this issue in the particular context in Saudi Arabia (Hail context), but it should also help to understand this issue in depth in the wider Saudi context. This is because there are similarities between universities in Saudi Arabia where they all work under the umbrella of the Ministry of Education and belong to the same Saudi cultural context. According to Alzaydi (2010), even though there might be small differences between some universities' programmes, all Saudi universities work under the umbrella of the Ministry of Education and follow the same general policy.

I argue that the findings of this study can be transferred to other universities in Saudi Arabia with similar policies, programmes and cultures. In addition, although there have been several studies in developed countries such as the UK to investigate the use of social networking sites for personal learning, the current study is one of the first conducted in a developing country, and particularly in the Saudi context, which could provide important findings and contribute significantly to knowledge. I think, therefore, that the findings of the current study could be transferred to illuminate similar factors that influence the students' use of SNSs to promote personal learning in other contexts.

4.3.6.3 Dependability

In order to achieve high quality research, particularly with educational research, reliability of data is needed. Golafshani (2003) explained that reliability is a concept that is used to test and evaluate a piece of research. The term reliability

is more likely to be used in positivist research, while interpretive research uses the term 'dependability'. According to Shenton (2004, p.71), "in addressing the issue of reliability, the positivist employs techniques to show that, if the work were repeated, in the same context, with the same methods and with the same participants, similar results would be obtained". However, in qualitative research, the issue of dependability could be addressed by repeating the process of the current study including the same strategies and methods, data collection and data analysis, which would allow for future researchers to repeat the work, with the possibility of not getting the same result. Furthermore, Shenton (2004) stated that deep coverage of the research allows readers to develop their understanding of the methods and their effectiveness. In order to enable readers of my research to understand my methods and their effectiveness, I have described in detail the research design, implementation, data collection and analysis, and evaluated the effectiveness of the research process.

4.3.6.4 Confirmability

Confirmability is the final criterion suggested by Lincoln and Guba (1985) to assure the quality of the findings and establish trustworthiness, which is comparable to objectivity in a quantitative study. It is "concerned with establishing that data and interpretations of the findings are not figments of the inquirer's imagination but are clearly derived from the data" (Tobin & Begley, 2004, p.392). Some authors, such as Bowen (2009), Koch (2006), Lincoln and Guba (1985), have argued that confirmability of qualitative research can be achieved via triangulation. As the current study adopted triangulation by using three research methods, their results might decrease the researcher's bias

because they were declared according to participants' perceptions and their views. However, the researcher's perspective plays a large role in shaping the research.

4.4 Summary of the chapter

This chapter has described the research methodology and the design adopted to carry out this study. It has presented the research questions followed by the philosophical assumptions, research paradigm and methodology. It has also discussed the sample of the study, research methods and instruments. In addition, ethical considerations and the procedure of data collection were explained, followed by the data analysis processes. It concluded by discussing the trustworthiness of the research including credibility, transferability, dependability and confirmability. The next chapter presents the quantitative findings that emerged from the SDL questionnaire.

5 Quantitative findings

5.1 Introduction

This chapter presents the quantitative findings derived from the SDL questionnaire data. As mentioned in the previous chapter, although this study is fundamentally qualitative in nature, the questionnaire as an instrument for data collection was used to collect data from a larger sample which provided background information about the students' use of SNSs to promote their personal learning, which could provide useful insights into the entire picture of the students' use of SNSs for personal learning. The questionnaire findings could inform the later stages of the study when analysing qualitative data about the important factors that influence the use of SNSs to promote students' personal learning. The questionnaire aimed to give quantitative descriptions of the students' perspectives on the use of SNSs to promote their personal learning. Thus, the descriptive statistics including frequencies and percentages for variables and items of the questionnaire were conducted in this study in order to analyse data quantitatively.

The quantitative findings chapter is divided into several sections. The first section describes the whole sample by giving general demographic information about the subject of the study. In this section, the students' subjects and year of study are presented. The second section is divided into two sub-sections. The first one describes the students' use of SNSs, frequencies of using each type of SNS, and the reasons for the use of SNSs, while the second one gives an overview of the skills and accessibility of SNSs. In this sub-section, the levels of the students' technology skills; strategies of obtaining skills of using SNSs;

students' access to SNSs at home; the students' level of experience with SNSs; and the students' use of SNSs for personal learning and their understanding about the nature of personal learning are presented in more detail. The third section presents means and standard deviations and patterns of responses through item-by-item analysis. In the fourth section, statistical tests on the SDL scale are carried out, dealing with factor scores followed by normality tests. Moreover, it presents comparisons of factor scores by year of study and the five dependent variables by academic subject. At the end of the chapter, I discuss the limitations of the quantitative findings and a brief conclusion.

5.2 Description of the whole sample

As the current study sought to explore the differences between the influences of the main four factors (PF, LP, CF, and LOU) according to students' subjects and year of study, it is important to present general demographic information about the participants in these areas ($N=522$) in relation to the use of SNSs for personal learning. Firstly, students' ages were analysed, and it was found that all participants were between 18 years and 26 years old. Secondly, their years of study are shown in Figure 5-1 below.

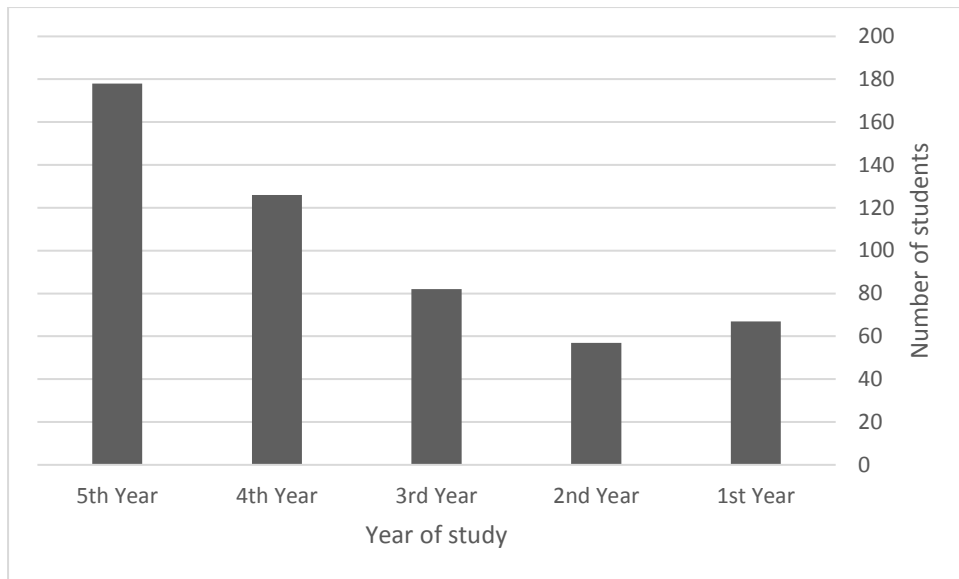


Figure 5-1: The participants' year of study

Figure 5-1 shows that 67 students were in the first year of study (13%), 57 students were in the second year (11%), 82 students were in the third year (16%), 126 students were in the fourth year (25%), and 178 students were in the fifth year (35%). Academic subject is another variable that is used to distinguish the students' use of SNSs for personal learning. Table 5-1 shows the academic subjects of the students in the sample, which were then grouped into two main subject areas.

Table 5-1: Academic subjects of the sample

Academic subject	Frequency	Percent	Faculty	Frequency	Percent
Medicine college	31	6.3	Science	138	27.8
Dentistry college	6	1.2	Science		
Pharmacy college	4	0.8	Science		
Applied medical science college	9	1.8	Science		
Nursing college	9	1.8	Science		
Public health college	5	1.0	Science		
Engineering college	15	3.0	Science		
Computer science and engineering college	36	7.3	Science		
Science college	23	4.6	Science		
Business college	39	7.9	Humanities	358	72.2
Education college	240	48.4	Humanities		
Art college	57	11.5	Humanities		
Law college	5	1.0	Humanities		
Community college	17	3.4	Humanities		
Total	496	100		496	100
Missing	26			26	

Table 5-1 indicates that 240 students were from the Education College, which means that almost half of the participants in this study was from this college (48.4%). 57 students were from the Art College (11.5%), followed by 39 students from the Business College (7.9%). Moreover, students of the Computer Sciences and Engineering College were (36), students of the Medicine College were (31), students of the Science College were (23), followed by students of the Community College who were (17). On the other hand, only 9 students came from the Applied Medical Science College and Nursing College. In addition, there were very few students from Dentistry

College (6), Law College (5), Public Health College (5) and Pharmacy College (4), which represented almost the same percentage (1% each).

Because the numbers in some of the academic subjects were very small, the subjects were grouped into two large subject areas for the purpose of statistical analysis. This resulted in 138 (27.8%) in the science colleges and 358 (72.2%) in the humanities colleges. Thus, only slightly more than one quarter of the sample were science students while almost three quarters were humanities students.

5.3 The use of SNSs by the university students

5.3.1 Pattern of use of SNSs

Figure 5-2 describes the students' use of SNSs.

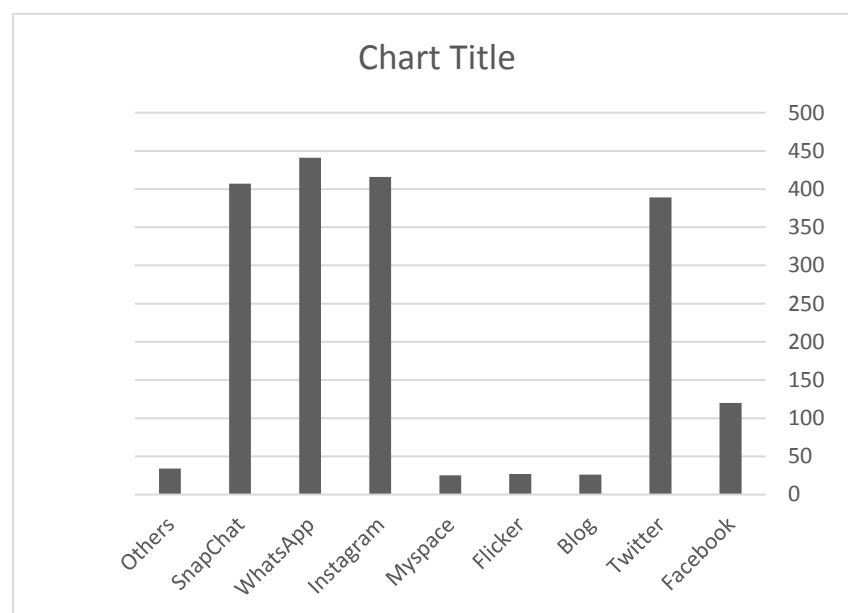


Figure 5-2: The sample's use of SNSs

Figure 5-2 shows that most of the participants in this sample (441, 84%) used WhatsApp, (416, 80%) used Instagram, (407, 78%) used Snap Chat, (338, 74%) used Twitter and (120, 23%) used Facebook. By contrast, only 34 (6%)

used other SNSs such as Telegram and Ask. Only 27 students in this sample used Flickr, 26 used Blog and 25 used Myspace, which means that all these three SNSs formed the same percentage of the sample (5%). It is clear that the three SNSs (WhatsApp, Instagram and Twitter) were seen as more popular SNSs used among the female students at the University of Hail. I argue that the students' high use of WhatsApp, Instagram and Snap Chat might be because they are relatively new sites and because of their popularity for social communication. Unsurprisingly, the high use of Twitter was supported by an earlier study which found that most of the SNSs' users in Saudi Arabia had Twitter accounts (Puddington, 2013).

Table 5-2: The frequencies of using each type of SNSs

Type of SNSs	How frequently do you check these sites? %				
	More than once a day	Daily	Weekly	Monthly	Less than once a month
Facebook	10.0	17.0	17.5	12.5	43.3
Twitter	44.2	33.0	15.2	3.3	4.4
Blog	19.2	15.4	11.5	8.0	46.2
Flickr	11.1	7.4	26.0	14.8	41.0
Myspace	16.0	4.0	16.0	12.0	52.0
Instagram	46.0	39.0	11.5	1.4	2.2
WhatsApp	73.2	24.3	1.1	1.1	.2
Snap chat	70.5	26.0	3.0	.5	.2
Others	47.1	18.0	29.4	0.0	6.0

Table 5-2 shows how often students used each type of SNS. The table shows the percentages for each frequency of use of each type of SNS. It is clear that

approximately three quarters of WhatsApp and Snap Chat users used them more than once a day (73% and 70% respectively); approximately a quarter of WhatsApp and Snap Chat users used them daily (24% and 26%); and very small percentages of WhatsApp and Snap Chat users (less than 1% to 3%) used them less often, whether weekly, monthly or less than once a month. There were similarities in the percentages between Twitter, Instagram and other SNS users. For example, just less than half of Twitter, Instagram and Other SNSs users used them more than once a day (44%, 46% and 47% respectively). 33% of Twitter users and 39% of Instagram users used them daily, while 18% of Other SNSs users used them daily. On the other hand, 29% of Other SNSs users used them weekly, whereas 15% of Twitter users and 11% of Instagram users used them weekly. Less than half of Facebook (43%), Blog (46%) and Flickr (41%) users used them less than once a month, while less than a fifth used them daily (15%, 17% and 7% respectively). Moreover, more than 50% of Myspace users used it less than once a month, while only 16% used it more than once a day.

5.3.2 Students' reasons for using SNSs

There were several reasons for using SNSs given by female students at the University of Hail. These reasons are shown in Table 5-3:

Table 5-3: Reasons for using SNSs

Social networking sites	Reasons for using social networking sites			
	Education	Leisure	Social communication	Other
Facebook	29	34	40	27
Twitter	198	164	187	45
Blog	8	9	8	9
Flicker	7	10	4	8
Myspace	6	9	11	10
Instagram	159	274	134	50
WhatsApp	119	142	359	26
Snap chat	97	325	181	29
Others	9	14	12	8

The table above shows that 198 of Twitter users used it for educational purposes, 187 of them used it to communicate with others, 164 of them used it for leisure and only 45 of them used it for other purposes. For Instagram users, more than half of them (274) used it for leisure, about a quarter of them (134) used it for social communication, and more than a third of them (195) used it for educational purposes, while only (50) users used it for other purposes. Moreover, 359 of WhatsApp users used it for social communication, 119 of them used it for educational purposes, 142 used it for leisure and only 26 of them used it for other purposes. Most Snap Chat users (325) in this sample used it for social communication and only (97) of them used it for educational aims. By contrast, 101 of the users who indicated they use Facebook used it for other than educational purposes (40 for communication, 34 for leisure and 27 for other purposes), and only 29 of them used it for educational purposes. It was about a quarter of each of Blog (8), Flicker (7) and Myspace (6) users used them for educational purposes.

5.3.3 Skills and accessibility

5.3.3.1 Levels of students' technological skills

Table 5-4 explains the levels of the students' technological skills. It is notable that, when students in this sample were asked about their level of technological skills, of the 456 students who answered this question, 50% rated themselves in an intermediate level of technology skills, and 45% of them saw themselves in an advanced level of technology skills. Importantly, only 5% saw their technology skill level as beginners.

Table 5-4: Levels of students' technological skills

Level of skill	Frequency	Percentage
Beginner	22	5.0
Intermediate	228	50.0
Advanced	206	45.2
Total	456	100
Missing	66	

5.3.3.2 Strategies for obtaining skills in using SNSs

Table 5-5 shows the strategies for obtaining skills in using SNSs among the questionnaire sample.

Table 5-5: Strategies for obtaining skills in using SNSs

Obtaining skills	Frequency
Attended in-university training course	24
Attended private training course	20
Assisted by lecturers or colleagues	30
Assisted by family members	135
By myself by trial and error	390
Other	9

From the table above, it is clear that more than half of students (390) gained their SNSs skills by themselves, such as by trial and error. 135 of the students got these skills by assistance from family members. By contrast, only small numbers reported obtaining their SNSs skills via assistance from lecturers or colleagues (30), attending an in-university training course (24), or attending a private training course (20), and only 9 of them obtained these skills by other means.

5.3.3.3 Access to SNSs at home

Table 5-6 describes students' access to SNSs at home. It shows that, of 452 students who answered this question, 98% had a good access to SNSs at home and only 2% of them did not have a good access to these sites.

Table 5-6: Access to SNSs at home

Access	Frequency	Percentage
Yes	443	98.0
No	9	2.0
Total	452	100
Missing	70	

5.3.3.4 Students' level of experience with SNSs

Table 5-7 describes the students' level of experience with SNSs. It was found that about 50% of students thought they had an advanced level of experience with SNSs and 45% of them saw their experience as at an intermediate level, while only 7% of them regarded themselves as beginners.

Table 5-7: Students' level of experience with SNSs

Level of experience	Frequency	Percentage
Beginner	32	7.1
Intermediate	207	45.8
Advanced	213	47.1
Total	452	100
Missing	70	

5.3.4 Using SNSs for personal learning

Table 5-8 gives an overview of the students' use of SNSs for personal learning and their concept of personal learning. 376 of the students used SNSs for personal learning (86%) while only 63 did not use them for personal learning (14%), which means that the great majority of the students used these sites for personal learning.

Table 5-8: Using SNSs for personal learning

If yes, what is the meaning of personal learning?	Uses social networking sites for personal learning	
	Yes	No
	376	63
Finding information about the course	211	
Contacting experts and professional	149	
Discussion with others about the course materials.	150	
Doing exercises	123	
Finding resources related to the course	218	
Seeking help with assignments	211	
Others	23	

The most commonly given meaning of personal learning was ‘finding resources related to the course’ (218), followed by ‘finding information about the course’ (211) and ‘seeking help with assignments’ (211). 150 of the students saw personal learning as ‘discussion with others about the course materials’ and 149 as ‘contacting experts and professionals’. On the other hand, only 23 students thought about personal learning in different ways, such as attending conferences.

5.4 Descriptive statistics of sub-scales and item-by-item analysis

As explained in detail in the literature review and methodology chapters, in addition to the demographic information and the use of SNSs in general, the

questionnaire sought information about the use of SNSs for self-directed learning. It was divided into four sub-sections that were informed by the Self-Directed Learning Model. All four sub-sections contained closed questions and they consisted of several items. The sub-sections were: personal factor (PF) 15 items; learning process (LP) 17 items; contextual factor (CF) 15 items; and learning outcome (LO) 4 items. Quantitative data of the questionnaire was coded and then analysed using the statistical analysis package SPSS 22. Most of the questionnaire items were positively worded and scored according to a Likert scale ranging from 1 (strong disagreement) to 5 (strong agreement). Four items were negatively worded (2, 6, 22, and 46), so, I reversed the scoring on these items.

5.4.1 Information about self-directed learning

Table 5-9 shows the item-by-item results presenting the number of responses for each level of agreement, mean and standard deviation. The mean score was computed by adding up the scores for each participant who answered items and then this total was divided by the number of participants who answered these items. Thus, the mean score was not affected by those participants who did not answer these items but rather it indicates the mean score for those who did answer the items. Therefore, the cases were excluded pairwise (see Pallant, 2010, p.127).

Table 5-9: Self-directed learning sub-scale

Self-directed learning	SD%	D%	N%	A%	SA%	Miss	Mean	Std. D
I always effectively take responsibility for my personal learning.	2.2	2.0	15.8	50.2	29.8	116	4.03	.86
I do not feel confident in my ability to motivate my personal learning.	30.6	36.2	16.6	11.7	4.9	113	3.76	1.15
I always assume personal responsibility for my personal learning.	3.5	5.5	15.3	50.0	26.0	122	3.89	.97
I am very successful at prioritizing my personal learning goals.	3.9	8.4	27.8	42.3	17.7	115	3.61	1.00
I always feel in control of my personal learning process.	3.2	7.1	21.7	51.2	16.7	116	3.71	.94
I find it difficult to plan for my personal learning independently.	11.7	31.8	30.1	20	6.4	113	3.23	1.09
I often collect additional information about interesting topics after the course has ended.	5.4	11.8	21.2	46.1	15.5	116	3.45	1.06
I always effectively organize my personal learning time.	4.7	16.5	29.2	38.3	10.8	115	3.34	1.03
I am able to evaluate my personal learning level.	3.2	7.4	25.7	47.0	16.6	118	3.66	.95
I can monitor my learning progress.	3.0	5.0	16.6	56.1	19.4	119	3.83	.89
It is easy to find resources that are useful for my personal learning.	4.2	15.5	19.2	43.8	17.2	116	3.54	1.08
I seek help from others to develop my personal learning.	3.7	13.5	21.6	47.2	14.0	115	3.54	1.01
My interaction with others helps me plan for further learning.	2.7	6.4	13.8	47.7	29.4	117	3.94	.97

On the whole, participants had the most positive attitude to Item 1 (I always effectively take responsibility for my personal learning) with a mean score of 4.03. The least positive attitude was about the item 6 (I find it difficult to plan for my personal learning independently) with the mean score 3.23 which is only just above the neutral score. Therefore, although the students take responsibility for their learning, they find planning it difficult.

Looking in detail at the pattern of responses, the third item in this scale (I always assume personal responsibility for my personal learning) showed that 50% of respondents agreed and 26% of them strongly agreed with the item, whereas only 3% of them strongly disagreed with the item. Also, more than half of respondents (56%) agreed with item 10 (I can monitor my learning progress), and only 5% disagreed with it.

Table 5-10: Meaning of self-directed learning score

Attitude	Range of score	Number of items
Positive	3.7 – 5.0	6
Neutral	2.3 - 3.7	7
Negative	1.0 2.3	0

Overall, the total number of the sample (522) tended to have a fairly positive attitude to SDL. The overall attitude was positive on six of the 13 SDL items, because the means lay between 3.7 and 5.0, and neutral on the other seven items where the means lay between 2.3 and 3.7; the overall attitude was not negative on any of the items.

5.4.2 Information about using SNSs for personal learning

5.4.2.1 Personal factors (PF)

Table 5-11: Personal learning sub-scale

Personal factors	SD%	D%	N%	A%	SA%	Miss	Mean	Std. D
1- I believe in the importance of SNSs as tools for personal learning.	2.7	2.9	8.2	41.4	44.8	145	4.23	.914
2- I always effectively take responsibility for my personal learning through using SNSs.	1.9	8.0	15.0	49.1	26.0	149	3.89	.944
3- SNSs motivate me to develop personal learning.	2.1	5.1	14.1	50.8	27.9	146	3.97	.902
4- I am very confident in my ability to independently prioritize my personal learning goals through using SNSs.	3.2	6.7	24.8	47.2	18.1	147	3.70	.948
5- I am interested in using SNSs to develop personal learning.	3.2	9.0	13.0	50.1	24.7	145	3.84	1.00
6- I am very successful at prioritizing my personal learning goals through SNSs.	3.7	10.2	27.0	41.7	17.4	148	3.59	1.01
7- Using the social networks to connect with others in order to achieve personal learning is a good idea.	7.3	4.5	10.2	54.5	27.0	148	3.96	.944
8- Working with the social networks for personal learning makes the learning more interesting.	4.0	3.5	8.0	51.1	33.4	148	4.06	.955
9- I do not like using the social networks for personal learning.	30.4	30.9	14.9	17.1	6.7	147	*2.61	.94
10- I have the necessary skills for using the social networks.	2.9	4.8	19.0	49.3	23.9	149	3.86	.933
11- In order to be successful in my university study, it is necessary to use social networks to improve my learning.	3.5	7.5	19.5	45.9	23.7	147	3.78	1.00
12- SNSs makes personal learning environment easier.	2.9	4.3	13.1	50.3	29.4	148	3.98	.929
13- Using SNSs to develop personal learning can save time and effort.	3.0	2.7	14.2	46.5	33.6	150	4.05	.922
14- I feel confident finding information when I use SNSs for personal learning.	3.2	4.3	13.5	47.8	31.1	152	3.99	.955

The items where the participants indicated the most positive attitude were item 1 (I believe in the importance of SNSs as tools for personal learning; mean 4.23) and item 8 (Working with the social networks for personal learning makes the learning more interesting; mean 4.06), while the least positive attitude was on item 9 (I do not like using the social networks for personal learning) with a

mean of 2.61 which is a low neutral score. I believe that, since item 9 was negatively worded, the students may not have answered correctly.

Looking in detail at the pattern of responses, most respondents agreed with all items of the scale. For example, 54% of respondents believed that using social networks to connect with others in order to achieve personal learning is a good idea, and 51% of them thought that working with social networks for personal learning makes the learning more interesting. Only a very small percentage of respondents disagreed with each of the two items; only 4% disagreed with item 7 (using the social networks to connect with others in order to achieve personal learning is a good idea) and 3% disagreed with item 8 (working with the social networks for personal learning makes the learning more interesting).

Table 5-12: Meaning of personal factors score

Attitude	Range of score	Number of items
Positive	3.7 – 5.0	11
Neutral	2.3 - 3.7	3
Negative	1.0 – 2.3	0

In personal factors, the participants showed a positive attitude to the great majority of the items. They had an overall positive attitude on 11 items, were neutral in 3, and showed no overall negative attitude. They showed an overall confidence in using SNSs.

5.4.2.2 Learning processes

Table 5-13: Learning processes

Learning processes	SD%	D%	N%	A%	SA%	Miss	Mean	Std. D
1. I feel that I have a good control over my personal learning through SNSs.	1.8	3.0	18.2	51.9	25.1	187	3.95	.844
2. I feel confident in organizing my personal learning through SNSs.	2.1	4.2	21.3	51.4	21.0	189	3.84	.872
3. I know how to find resources that support my personal learning in the SNSs.	4.2	3.3	17.5	52.8	22.3	185	3.85	.940
4. I find it easy to go through the stages of personal learning using SNSs.	3.9	4.8	13.7	54.0	23.8	186	3.88	.950
5. Finding the appropriate learning groups in the SNSs is an easy task.	5.1	5.4	21.6	48.2	19.8	188	3.72	1.00
6. I can effectively communicate with others in the SNSs to develop my personal learning.	2.4	3.3	17.7	53.9	22.8	188	3.91	.863
7. I would rather take the initiative to learn new things through using SNSs rather than waiting for the instructor to foster new learning.	3.6	6.9	16.9	48.8	23.8	190	3.82	.990
8. I can plan for my personal learning through SNSs independently.	1.5	7.8	24.0	46.4	20.4	188	3.76	.914
9. I often use materials I've found on my own from SNSs to help me in a course.	1.8	3.9	22.1	51.9	20.3	187	3.85	.848
10. I am very convinced I have the ability to take personal control of my personal learning through using SNSs	2.7	3.3	20.2	52.7	21.1	190	3.86	.878
11. I am usually aware of the progress of my achievement when studying personally through SNSs	4.5	4.2	20.9	52.2	18.2	187	3.75	.950
12. If I'm not doing as well as I would like in a course, I always independently improve my personal learning through using SNSs to make the changes necessary.	3.0	6.5	17.3	55.1	18.2	186	3.78	.917
13. Even after a course is over, I continue spending time to personal learning about the topic through using SNSs	4.5	11.1	20.1	47.0	17.4	188	3.61	1.03
14. I always effectively organize my personal learning time.	3.6	11.5	26.6	42.6	15.7	191	3.55	1.00
15. The actual process of using the social networks for personal learning is pleasant	3.0	5.0	19.9	53.1	19.0	185	3.80	.905
16. I can evaluate my own performance through SNSs to develop my personal learning.	3.9	5.4	20.2	52.7	17.9	186	3.75	.940
17. I am able to be monitor for my learning progress through SNSs.	3.3	5.1	23.6	51.9	16.1	187	3.72	.906

Overall, the participants had the most positive attitude to the item 1 (I feel that I have a good control over my personal learning through SNSs) with a mean score of 3.95, while they had the least positive attitude on item 14 (I always

effectively organize my personal learning time) with a mean score 3.55, which is in the neutral range. Thus, even though students felt they had a good control in general over their personal learning through SNSs, they were not confident that they could organize their personal learning time effectively.

Looking in detail at the pattern of responses, approximately 50% of respondents agreed with all the learning process items. For instance, more than half of respondents (55.1%) agreed that, if they were not doing as well as they would like in a course (item 12), they always independently improved their personal learning through using SNSs to make the changes necessary, while 18% strongly agreed with the item, whereas only 9% either strongly disagreed or disagreed with it.

Table 5-14: Meaning of learning processes scores

Attitude	Range of scores	Number of items
Positive	3.7 – 5.0	15
Neutral	2.3 - 3.7	2
Negative	1.0 - 2.3	0

Regarding learning processes, participants had an overall positive attitude on 15 items, neutral on 2, and negative attitude on no items. This indicates that the participants felt they had control to manage their learning processes through SNSs.

5.4.2.3 Contextual factors (CF)

Table 5-15: Contextual factors sub-scale

Contextual factors	SD%	D%	N%	A%	SA%	Miss	Mean	Std. D
1. If there is something I don't understand in a class, I always use SNSs to learn it on my own.	3.0	5.6	18.3	44.5	28.6	221	3.90	.978
2. Without the lecturers' help, I always have a problem knowing what changes I need to make to improve my personal learning.	6	17.4	22.1	41.1	13.4	223	*2.62	1.10
3. SNSs enhances my responsibility towards personal learning.	2.3	5.0	20.3	51.5	20.9	221	3.83	.892
4. I seek help from my lecturer to develop my personal learning.	6.4	12.8	24.5	43.6	12.8	224	3.43	1.06
5. Available online resources in SNSs are useful for my personal learning.	2.7	4.0	17.1	54.5	22.0	223	3.88	.822
6. I have communication groups in SNSs that provides me with what I need to learn by myself.	4.3	5.6	17.3	52.8	19.9	221	3.78	.971
7. I communicate with my colleagues at universities through SNSs to improve my personal learning.	4.0	2.7	15.4	48.2	29.8	223	3.96	.960
8. I communicate with others through SNSs to improve our personal learning.	4.3	4.7	17.1	49.5	24.4	223	3.84	.986
9. I always depend on SNSs to make sense of things I don't understand.	2.3	7.0	17.7	46.0	27.0	222	3.88	.962
10. My interaction with others through SNSs helps me plan for further learning.	3.0	3.7	16.7	53.7	23.0	222	3.90	.897
11. My lecturer provides me with support to develop my personal learning through SNS.	9.1	12.1	19.1	46.3	13.4	224	3.42	1.14
12. My colleagues provide me with support to develop my personal learning through SNS.	6.0	7.4	16.1	48.5	22.1	223	3.73	1.07
13. I easily find learning groups that support my personal learning in the SNSs.	6.0	8.0	20.7	46.0	19.3	222	3.64	1.06
14. Information that I find in the SNSs is reliable.	3.0	9.1	33.0	42.1	12.8	225	3.52	.933
15. People I deal with in the SNSs are professionals that I can rely on.	4.0	10.7	31.1	41.8	12.4	223	3.47	.977

The item with the most positive response was the item 7 (I communicate with my colleagues at universities through SNSs to improve my personal learning) with a mean score of 3.96, while the item with the least positive response was item 11 (My lecturer provides me with support to develop my personal learning

through SNS) with a mean of score 3.43 which is only just above the neutral score. This means that the students found communicating with their colleagues at universities creates a better learning environment than with lecturers.

Looking in detail at the pattern of responses, 76% of respondents either agreed (54%) or strongly agreed (22%) with item five (available online resources in SNSs are useful for my personal learning), and 17% of them had a neutral answer, while only 6% of them either disagreed (4%) or strongly disagreed (2%).

Table 5-16: Score of contextual factors

Attitude	Range of score	Number of items
Positive	3.7 - 5.0	9
Neutral	2.3 - 3.7	6
Negative	1.0 - 2.3	0

In the contextual factor, the overall attitude was positive on nine of the 15 items, neutral on six of them and was not negative on any of the items.

5.4.2.4 Learning outcomes (LOU)

Table 5-17: Learning outcomes sub-scale

Learning outcomes	SD%	D%	N%	A%	SA%	Miss	Mean	Std. D
1- With the help of SNSs for personal learning, I can feel the improvement in my course achievement.	2.7	4.7	18.9	53.5	20.2	225	3.83	.893
2- Using SNSs for personal learning has significantly improved my course results.	2.4	3.0	20.9	54.9	18.9	225	3.84	.842
3- Using SNSs for personal learning has increased my confidence about my knowledge.	2.4	2.0	15.2	59.3	21.2	225	3.94	.810

In general, all the items on this scale had a positive response. It can therefore be said that using SNSs for personal learning can improve students' performance, according to the participants. Most respondents agreed with the three items. For example, more than 50% of respondents agreed that using SNSs for personal learning increased their confidence about their knowledge; using SNSs for personal learning significantly improved their course results; and with the help of SNSs for personal learning, they could feel the improvement in their course achievement. About a quarter of respondents who agreed with these items and about a quarter of them also had neutral answers. On the other hand, only 5% or 6% of respondents strongly disagreed and disagreed with these items.

Table 5-18: Score of learning outcomes

Attitude	Range of score	Number of items
Positive	3.7 - 5.0	3
Neutral	2.3 - 3.7	0
Negative	1.0 – 2.3	0

On the learning outcomes, the overall attitude was positive on all items and not negative on any of the items.

5.5 Statistical Test on SDL Scale

5.5.1 Factor Scores

I conducted a factor analysis on each section of the questionnaire. It was found that there was no clear factor structure for any of the sections. Items loaded on to more than one factor. Therefore, I did not proceed with factor analysis.

Instead of that I intended to use all the items in each section to form the scales. To check the reliability of the scale, Cronbach's alpha was computed for each scale, as explained in the methodology chapter. It was found to be greater than .7 for each scale, therefore each scale is reliable. The values of alpha for each scale are given in the table below.

Table 5-19: Cronbach's Alpha for each scale

Name of scale	Cronbach's Alpha	Number of items
Self-directed learning	.823	13
Personal factor	.927	14
Learning process	.955	17
Contextual factor	.879	15
Learning outcomes	.852	3

For each scale, the values of alpha could not be increased by deleting any item. Therefore, all the items were included in each scale. The mean score for each participant was computed for each of these scales.

5.5.2 Normality test

Normality tests were carried out on the five factor variables in order to ascertain whether parametric or non-parametric tests should be used to confirm statistically significant differences between sub-groups of the sample (by academic subject or year of study). The procedure for testing normality was followed as described by Pallant (2010, p.59).

The Kolmogorov-Smirnov test for normality of distribution was carried out. The result of the K-S test is shown in Table 5-20. It shows that the distribution of each of the factor scores was significantly different from the normal distribution because $p=.000$. Therefore, the distributions were non-normal and non-parametric statistics were used.

Table 5-20: Normality tests

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Self-directed learning	.091	410	.000	.968	410	.000
Personal factors	.132	377	.000	.925	377	.000
Learning process	.122	337	.000	.935	337	.000
Contextual factors	.100	302	.000	.941	302	.000
Learning outcomes	.238	297	.000	.890	297	.000

As an example of the distribution, personal factor (PF) will be used. The histogram for PF is shown below.

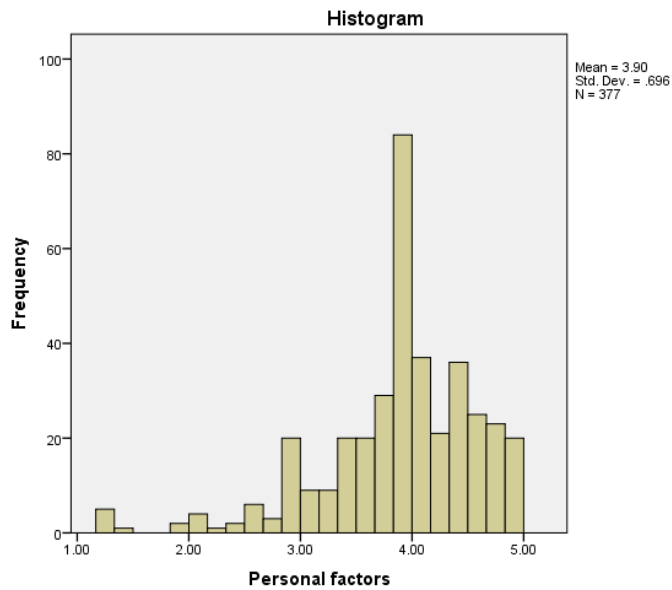


Figure 5-3: Histogram showing distribution of PF scores

The histogram shows that the scores are bunched at the right-hand side, indicating negative skewness. There are a few very low scores. This distribution is illustrated again in the box and whisker plot below.

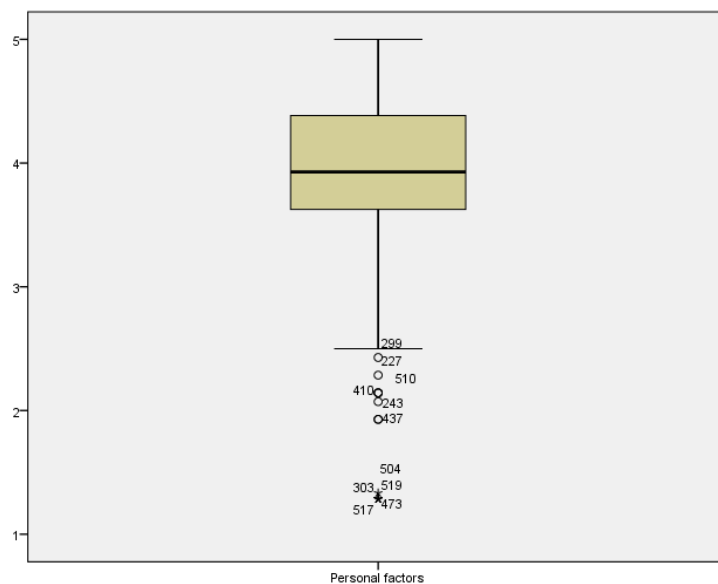


Figure 5-4: Box and whiskers for distribution of PF scores

The box shows a high median score of the approximately 4 with a long tail of very low scores. There are five cases which are a lot lower than all the others

(504, 303, 519, 473, and 517). These may be considered outliers and, as these may have a great effect on the results of a statistical analysis, it may be worth removing them from any subsequent analysis. However, because non-parametric statistics will be used, only the order of the scores matters and not the actual values so the outliers will be retained. A similar distribution was observed for the other four factors.

5.5.3 Comparison of factor scores by year of study

Table 5-21 shows the median scores on each factor by year of study. The medians are used rather than the means because non-parametric statistics are being used.

Table 5-21: Median scores for factors

Year of study	SL	PF	LP	CF	LOU
First	3.69	3.86	3.85	3.53	4.00
Second	3.69	4.07	3.84	3.80	4.00
Third	3.69	3.93	3.88	3.67	4.00
Fourth	3.69	4.00	3.88	3.67	4.00
Fifth	3.77	3.96	4.00	3.87	4.00

The table shows some small differences by year of study on some of these medians. To look for statistically significant differences, the Kruskal-Wallis test was used because the data are non-parametric, there is one continuous dependent variable (e.g. SL) and one categorical independent variable with three or more categories (year of study) (Pallant, 2010, p.232). The output of the Kruskal-Wallis test is shown in Table 5-22.

Table 5-22: Kruskal-Wallis test

Year of Study	Number of Participants	Mean Rank (CF)
First	33	125
Second	33	162
Third	49	137
Forth	80	143
Fifth	107	170
Total	302	

Table 5-23 shows that the significance level was less than .05 on the CF but not on the other four dependent variables. Therefore, there is a significant difference between one or more pairs of year groups on CF but no differences between year groups on any of the other variables. To find where the statistically significant difference lies, the table of the mean ranks for CF was inspected.

Table 5-23: Mean ranks for CF

	Self-directed learning	Personal factors	Learning process	Contextual factors	Learning outcomes
Chi-Square	2.723	4.579	6.737	10.328	5.431
df	4	4	4	4	4
Asymp. Sig.	.605	.333	.150	.035	.246

It appears that the main differences in mean rank lie between groups (First year and Fifth year), (First year and Second year) and (Third year and Fifth year), because the differences are 170-125, 162-125, 170-137, making 45, 37 and 33

respectively. In order to test for the significance of these three differences, repeated Mann-Whitney U tests were used (Pallant, 2010, p.235). To reduce the possibility of type 1 errors (finding a significant difference where none really exists), a Bonferroni adjustment was made to the value of p. Since three pairs of comparisons would be made, .05 was divided by 3 to make .017. Therefore, a significance level of $p = .017$ was used as the criterion for significance.

Table 5-24 compares the mean ranks between the year groups (from one to five) on the CF.

Table 5-24: Mean ranks between the year groups

	Year of study	N	Mean Rank	Sum of Ranks
Contextual factors	First	33	54.20	1788.50
	Fifth	107	75.53	8081.50
	Total	140		

Table 5-25: Mann-Whitney U test for CF

	Contextual factors
Mann-Whitney U	1227.500
Wilcoxon W	1788.500
Z	-2.653
Asymp. Sig. (2-tailed)	.008

The two tables above show that year five students ranked higher than year one students on the CF (75.53 compared to 54.20) and that this difference was statistically significant at the $p = .017$ level, because $p = .008$. Therefore, it can be argued that there is a significant difference in the CF between year one and five.

Carrying out Mann-Whitney U tests on groups 1 and 2 and groups 3 and 5 yielded p values of .097 and .025 respectively. Since these were greater than .017 the differences cannot be considered statistically significant.

To calculate the effect size of the difference in CF between year 1 and 5, I followed the procedure described by Pallant (2010, p.230). Effect size $r = z / \text{square root of } N$ where N = total number of cases. From the table above $z = 2.653$ and $N = 140$. This makes $r = .224$. According to Cohen (1988, cited in Pallant, p.230), $r = .1$ is a small effect and $r = .3$ is a medium effect. Therefore, this value of r indicates a fairly small effect size.

5.5.4 The five dependent variables by academic subject

As explained above, the 14 academic subjects were grouped into two main subjects for the purpose of statistical analysis. Because the data were non-normally distributed, a non-parametric test was used. This was the Mann-Whitney U test for one categorical variable (subjects) with two groups (Science and Humanities) and one continuous variable (SL, PF, LP, CF and LOU). Table 5-26 shows the mean ranks by study subject for each of the dependent variables.

Table 5-26: Mean ranks by study subject for each dependent variable

	Faculty	N	Mean Rank	Sum of Ranks
Self-directed learning	Science	110	195.05	21456.00
	Humanities	300	209.33	62799.00
	Total	410		
Personal factors	Science	103	161.05	16588.00
	Humanities	274	199.51	54665.00
	Total	377		
Learning process	Science	87	156.27	13595.50
	Humanities	250	173.43	43357.50
	Total	337		
Contextual factors	Science	78	134.48	10489.50
	Humanities	224	157.43	35263.50
	Total	302		
Learning outcomes	Science	76	133.22	10125.00
	Humanities	221	154.43	34128.00
	Total	297		

Table 5-26 indicates that, on each of the five dependent variables, students in humanities had higher mean ranking than students in science. In order to test where these differences were statistically significant, the Mann-Whitney U test was carried out and the results showed in Table 5-27.

Table 5-27: Mann-Whitney U for dependent variables

	Self-directed learning	Personal factors	Learning process	Contextual factors	Learning outcomes
Mann-Whitney U	15351.000	11232.000	9767.500	7408.500	7199.000
Wilcoxon W	21456.000	16588.000	13595.500	10489.500	10125.000
Z	-1.082	-3.057	-1.420	-2.003	-1.933
Asymp. Sig. (2-tailed)	.279	.002	.156	.045	.053

Table 5-27 shows that the significance level was lower than .05 for personal factor (PF) and contextual factor (CF). For PF, $p = .002$ while for CF $p = .045$. This means that there were mean differences between science students and

humanities students on PF and CF, with the humanities students having a higher score. On the learning outcomes (LOU), the difference was not quite statistically significant with $p = .053$ which is slightly higher than the cut off $p=.05$, so we cannot say that humanities students scored higher in science students on LOU.

5.6 Summary of the chapter

This chapter has presented the quantitative findings from the SDL questionnaire. It described in detail the demographic information of the participants in relation to study subject and year of study, in addition to their use of social networks, reasons for using these networks and the frequencies of their use. Moreover, an overview of the skills and accessibility of SNSs, level of students' skills and level of experience was also presented in this chapter. Aspects related to their use of SNSs for personal learning were presented in detail. This was followed by presenting the means and standard deviations and patterns of responses through item-by-item analysis. It also presented the statistical tests on the SDL scale and a comparison of factor scores by year of study and the five dependent variables by academic subject.

6 Qualitative findings

6.1 Introduction

After presenting the quantitative findings in the previous chapter, this chapter presents the qualitative findings revealed from analysis of the interviews and diaries. From the thematic analysis of the data (explained in greater detail in the methodology chapter), seven main themes emerged from the analysis. These themes are listed below:

- 1- The students' perceptions of personal learning.
- 2- The sense of agency among students; responsibilities and expectations.
- 3- Social networks; students' opinions and purposes of use.
- 4- Affordances of social networks in personal learning.
- 5- Skills and strategies of using social networks for personal learning.
- 6- Challenges face students when using SNSs for personal learning.
- 7- Cultural aspects related to the use of social networks for personal learning.

These themes are presented in separate sections in this chapter.

6.2 The students' perceptions of personal learning

Before the findings related to the use of social networks for personal learning are presented, this section presents findings about the students' perceptions of personal learning in general concepts that emerged from the data analysis. This section consists of two parts: the first part presents general perceptions about personal learning, and the second part concerns making personal learning more effective.

6.2.1 General perceptions of personal learning

This sub-theme emerged from the interview data where the participants expressed their perceptions about personal learning and its role in the learning process during their university courses. It shows how the students understand personal learning and the characteristics of this type of learning. Also, it presents their views about the importance of personal learning compared to university lectures, and the relationship between them.

6.2.1.1 Students' understanding of personal learning

When the students started talking about personal learning, there were three overarching themes that emerged, as shown in Figure 6.1 below. The first theme is 'achieving learning goals independently', the second is 'the students' self-responsibility about their learning', and the third is the 'sense of control' they have over their learning. It can be seen that personal learning is understood as a type of learning where students seek knowledge independently and try to achieve their learning goals by themselves, according to the participants' view. It was also seen by students as their self-responsibility for learning, stating that when they are self-responsible for their learning and its processes then they are learning personally. Others indicated that personal learning is the type of learning where the students have full control over their learning process, highlighting independence as the indicator of personal learning. From the above, it can be argued that the main characteristic of personal learning is the full control of students over their learning situation where they can set goals and choose strategies and materials independently. These views can be seen in the following quotes.

In personal learning, students want to learn and seek knowledge themselves. (Reham, Humanities Y2)

Personal learning in this case is an effective type of learning and it is better and more effective than the traditional learning through listening to a lecture because student would have the desire and self-responsibility about learning. (Mariam, Humanities Y5)

Studying in groups is not personal learning; in personal learning I have a full control over my learning. (Bedoor, Science Y3)

From the participants' views, it can be argued that they perceived personal learning as individual learning where they hold the responsibility and control over the process of their learning, regardless of the strategy or source of knowledge they gain, and regardless of the actual control they have. It may be fully independent learning or only independent in terms of choosing the strategy and source where they attempt to find 'informal teachers' outside the university from whom to learn. This issue will be explored in more detail later in this chapter and will be discussed in the discussion chapter.

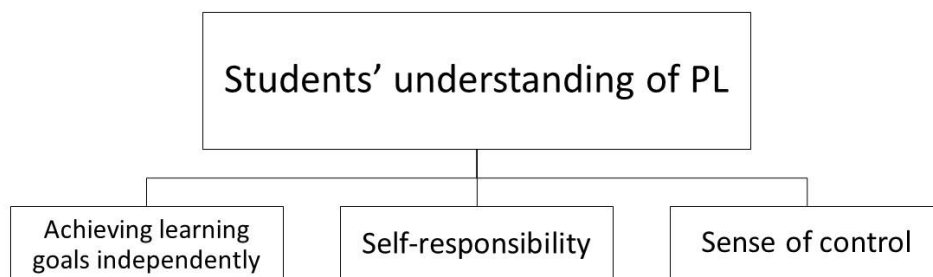


Figure 6-1: Students' understanding of personal learning

6.2.1.2 Characteristics of personal learning

When the students further discussed personal learning, they seemed to see personal learning as an important way of learning that could develop many skills, build confidence, and provide a major source of knowledge to support their learning significantly, as shown in Figure 6.2 below.

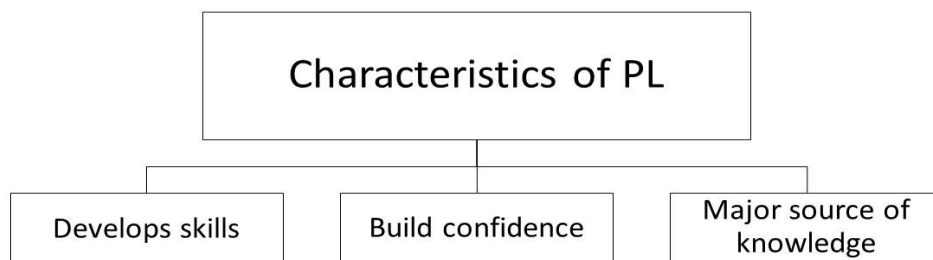


Figure 6-2: Characteristics of personal learning

With regard to skills development, the participants agreed that personal learning helped them to develop many social, educational and personal skills. For example, Eman indicated that personal learning helped her to develop and improved her dialogue and discussion skills. She argued that the practice of personal learning and its process had developed her ability to engage more effectively in discussions and to develop her skills in discussion and dialogue. The following quote is an example from her interview.

I noticed that personal learning has developed and improved my dialogic and discussion skills. (Eman, Humanities Y5)

In addition to the dialogic and discussion skills, personal learning might help in developing foreign language skills, such as in English. Some participants in this

study indicated that their personal learning was useful in developing their English language, especially when they were engaged in discussion with English speakers or following English materials such as watching a video in English.

For example, during my personal study, I try to speak English with people who speak English, I try to learn from them, I also watch films related to my study in English. Now I can read and write English very well, use dictionaries. (Sadiya, Science Y5)

In addition to the previous skills, some students stated that personal learning enabled them to know how to "deal with themselves". They seem to discover their abilities and skills through learning personally where they discover their ability to be independent. For example, one of the students stated that, through personal learning, she discovered her skills and abilities where she become more independent in her study.

We didn't recognise how to deal with ourselves. Through personal learning I gained the skill of independent learning. I discovered myself, my abilities. I don't need to seek help from others any more. (Eman, Humanities Y5)

In addition to skill development, the participants believed that personal learning increases confidence among students. Many students reported that personal learning gives them a sense of confidence.

Personal learning helped me to feel more confident about my ability to learn and about what I do. (Amina, Science Y2)

This self-confidence developed by personal learning seems to be a direct result of students' feeling of independence during their personal learning. Being an independent learner seems to give students a sense of confidence as they feel they know what to learn and how to learn and the directions of the process of

their learning. This view can be seen clearly in the following quote from the interviews.

Independence gives me more self-confidence. When I am confident, I know what to do for my study, and in what direction I shall go ... It is my independence, I know where I am, what I need. I know about my weaknesses and how to work to improve them. This gave me more self-confidence. (Amani, Humanities Y4)

Independence might increase self-confidence among students when they learn through a trial and error learning strategy, according to Wesam's point of view. She said that when she makes mistakes and corrects them independently, she then learns and becomes more self-confident about her ability to learn and how to deal with and evaluate references.

I learn through trial and error. When I make mistakes and correct myself, I learn and become more confident about what I learn and how to reference this knowledge. (Wesam, Science Y3)

In addition to skills development and building confidence, the participants also regarded personal learning as a major source of knowledge. They highlighted that this major source of knowledge is a significant support for university courses or lectures, as can be seen in the following quote.

I think personal learning is a very important source of knowledge that supports the course materials, I think it is the most important source. (Asma, Humanities Y4)

Further, some students thought personal learning even more important than lectures or other course materials as a source of knowledge for university students. For example, Maysa argued that personal learning is the source of knowledge that enables students to widen their professional knowledge and background in the subject.

It is more important than course materials and lectures; it widens the students' background and professional knowledge in the subject ... I think it is a very important source of knowledge for every student and those who miss this strategy will miss a lot in the field. (Maysa, Science Y5)

6.2.1.3 Personal learning vs. lectures

During the interviews, it was noticed that the participants always linked and compared personal learning to lectures at university as two different contexts (see Figure 6.3 below). Personal learning was reported by some participants to be more effective or more important than learning from the course lectures, for several different reasons. For example, Maha and Reham argued that personal learning is more effective than lectures because, in personal learning, students learn according to their preferences regarding time, learning strategy, resources and environment or context. They also set their own goals and seek to achieve these goals in their preferred way.

Being independent and planning for what I need to do and how to do it is the point of personal learning. Not like lectures where you are forced to listen to the lecture without any interest. (Reham, Humanities Y2)

Other participants justified the importance of personal learning over lectures by the limitations of the lectures in the time and knowledge provided. They indicated the need for personal learning as a supporting strategy in order to gain knowledge in the subject and overcome the limitations of lectures regarding time and knowledge presented. They also argued that university students should not rely on what they receive in lectures, rather they should widen their knowledge of the subject and increase their professional knowledge beyond the basic knowledge presented in lectures.

Ohood added that university students should not only take what they receive in the modules, rather they need to develop their learning independently, as the following quote shows.

Students must not stop by what they study in the modules. They need to learn from further resources and develop themselves and not be limited by the campus borders in order to be successful students. (Ohood, Humanities Y5)

Other students thought that personal learning is more effective than modules and lectures because the latter did not seem to meet their expectations regarding the quality of curriculum and teaching style or other course aspects. Therefore, these students seem to see personal learning as an effective alternative learning strategy by being independent learners. This view is seen in the following quote.

As I said, teaching style is not that good here in the college; the course contents are quite out-of-date, the lecturer is old fashioned, and there is not enough time. Therefore, personal learning overcomes all these issues. (Monira, Humanities Y5)

Although some participants saw personal learning as more effective than lectures, as they seem to look at them as two different and unconnected contexts as presented earlier, others thought that personal learning can support lectures where it is performed to prepare for lectures. Personal learning was thought by some participants to be an important strategy for preparing and gaining knowledge before lectures. Six of the 27 participants in this study indicated that they learn personally in advance in preparation for what they are going to study in their course, and they highlighted the importance of this strategy in developing students' learning. For example, Mody said that she learns personally about the course contents in advance before each semester

starts. She argued that this enables her to come to the course with previous knowledge and engage faster in what she learns.

I prepare in advance for each semester I take. I try to learn about the course content before I start the semester so I have enough knowledge about what I am going to study in the class. (Mody, Science Y2)

Other students said that they learn personally about the contents of each lecture in advance and this gives them good knowledge about the subject they are going to study and enables them to engage more in the lesson and discuss with others according to their point of view. The following quote is an example of this view.

When I am going to a lecture, I learn about the topic of the lecture beforehand. I think it is very important to prepare for lectures before we go so we get most benefits from the lecture. (Malak, Humanities Y3)

In addition, the nature of the subject being studied seems to be another important matter when making comparisons between this type of learning and the university lectures. Most of the students in this study expressed the importance of personal learning for their subject of study, both science and humanities students. Students in both fields argued that personal learning is an essential learning strategy in their subject to seek further information and go beyond the limited knowledge received at university. Those who were in the science colleges, such as medical college, argued that, due to the nature of their subject, they need to follow up what they learn at university by personal learning and seek knowledge from other professionals outside the university. The following quote is an example of this view.

My subject is medicine. I need to continue learning by myself after the lectures. I need to follow subjects we study outside the course limits. (Sara, Science Y4)

Also, students in humanities colleges such as education and arts also argued the importance of personal learning for their subject of study. They thought that their subjects require further learning and development independently after lectures in order to learn properly beyond the course limits, as can be seen in the following quote.

My subject is arts and I cannot rely on the course materials; I need to search more and learn more by myself ... In arts it is not enough to depend on lecture materials. I need to develop myself personally, discuss with others. (Hasna, Humanities Y5)

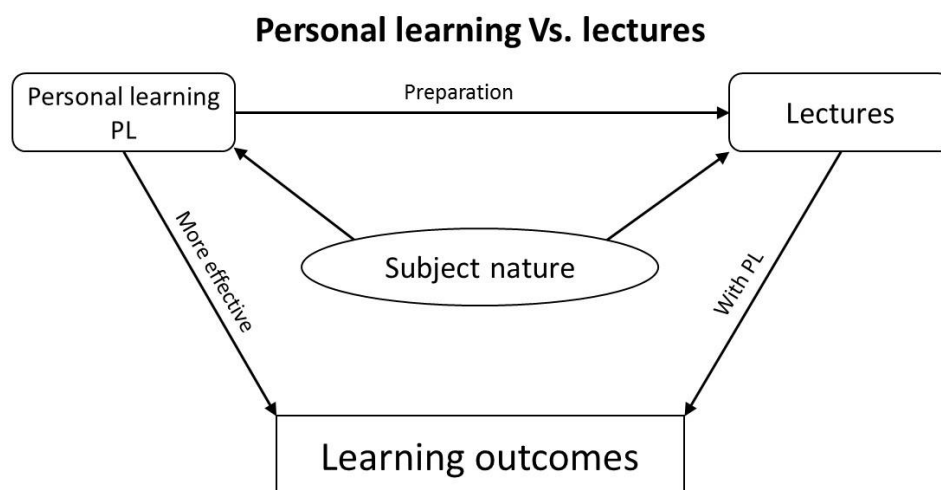


Figure 6-3: Personal learning Vs. lecture

6.2.2 Making personal learning more effective

As the participants expressed their views about personal learning and its role and importance for their development, they seem to have elements and conditions in mind that need to be met in order to make personal learning more effective and to develop properly through this strategy of learning, as shown in Figure 6.4 below.

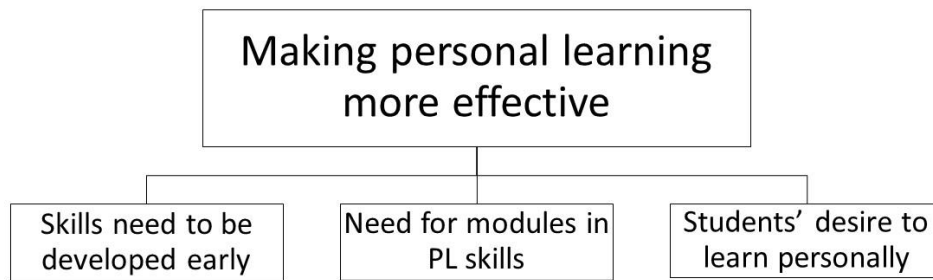


Figure 6-4: Making personal learning more effective

Developing the skills of personal learning from an early stage was mentioned by some participants as an important element that would make personal learning more effective. For example, Mariam argued that, as personal learning is very important for university students in developing their learning, they should at least have the basic skills of personal learning to help do it more effectively. She added that these personal learning skills need be developed early at university, particularly in first years of study.

I think personal learning is a major source of knowledge and learning at the university but its skills need to be developed early and the university should support students to develop these skills. (Mariam, Humanities Y5)

She argued that skills of personal learning are necessary to avoid possible negative results that could be caused by the lack of learning skills where students could read untrusted materials or reach undesired conclusions. This highlights the importance of learning skills in filtering the wide content of knowledge and enabling students to be selective and follow the right source of knowledge during the process of personal learning.

In the same regard, other participants stated that these basic skills might be difficult to develop personally. Thus, they thought that there is a need for modules, or at least booklet talks, about personal learning and self-development in order to facilitate their learning process and develop their personal skills. This view is highlighted by three participants as presented in the following quote.

I wish there is a module in how to learn personally, this would facilitate learning for us. (Adhra, Humanities Y1)

I wish there is at least a guideline or booklet as part of our course materials that discusses personal development and how to perform personal learning. (Ghadeer, Science Y1)

It is worth mentioning that participants who expressed this need were in their first year of study, which might highlight the lack of personal learning skills among those who have just started their university study.

Another important condition that needs to be met in order for personal learning to be effective was the students' desire to learn personally. Mariam indicated that, although lecturers play a vital role in supporting students to learn personally, students' desire and willingness to learn personally is seen as an extremely important element in increasing the effectiveness of personal learning, as can be seen in the following quote from interview.

Because lecturers would not benefit students if the student herself is not willing to learn and put in the effort to do so. (Mariam, Humanities Y5)

She explained her view further by saying that, when a student has the self-desire or self-willingness for learning personally, she would develop her knowledge and information significantly.

6.3 The sense of agency among students; responsibilities and expectations.

The sense of agency and the assumed authority, responsibility and control over the learning process in the learning settings were found to be important elements that influence the learning process among students in relation to personal learning. This section presents the findings related to the sense of agency among university students, including the responsibility for the learning process among those involved, and the students' expectations from others as well as themselves during their learning.

6.3.1 Responsibilities

In this sub-theme, I present findings related to the assumed extent of responsibilities, independence, and/or dependence among the students in their learning and its process. Their perceptions about their roles and the lecturers' roles in their learning are presented in this section in more detail.

6.3.1.1 Lecturers' responsibility in the students' learning process

In this section, the responsibilities of lecturers in the students' learning are presented according to the participants' interviews.

Lecturers are responsible for the students' learning

Analysis of the interview data revealed that a minority of the students participating in this study believed that lecturers are responsible for the students' learning. For example, Sara believed that the lecturer is totally responsible for students' learning. She stated that the lecturer must give her students all the information they need during the lecture, and she thereby assumed less authority and control for herself as a student over the learning

process. She added that, during the lecture, the lecturer should create an atmosphere of comfort among students to help them learn more effectively, as shown in the following example from her interview.

The lecturer is responsible for our learning. During the session she must provide the information the lecture aims to deliver; she should make the atmosphere required for that. (Sara, Science Y4)

Students depend on lectures

Some other participants agreed that students depend on lectures in receiving knowledge. They argued that the lecturer should deliver content in a way that helps students understand the content. In addition, they stated that during the lecture, the lecturer might give her students the opportunity for face-to-face discussion in order to correct any misunderstandings or to give any further information needed about the topic. The following quote is an example that shows this view.

During the lecture, our lecturer should teach us, give us the information and content. Because of the effort the lecturer makes, trying to deliver the information in a good way, we can get the knowledge in a good way, better than other sources like reading a book. Also, at the end of the lecture there is a chance for discussion to correct misunderstandings and for more information in the topic. (Sadiya, Science Y5)

The reason for this high dependence on lecturer and her authority among these students seem to be the reliability of the lectures' contents compared to other resources, from their point of view. For example, some of them believed that knowledge needs to be obtained from the university campus and particularly during the lecture because of the reliability of the lecture's content and the information that is discussed with lecturers. Thus, they stated that students feel

more confident when receiving knowledge from the lecturer than from any other source. The following quote shows this view.

I try not to miss any piece of information in the lecture because it is the most reliable source of knowledge for my course. I rely on the lecture content more than any other sources because our lecturers provide the right information we need through lecture and discussion that we might not be able to find outside. (Eman, Humanities Y5)

In addition to face-to-face discussion and the reliability of the lecture's content, academic field is another element that makes students depend on the lectures more than other resources. The participants argued that some students, particularly in scientific fields, depend on lectures. Sadiya explained that some fields, like scientific fields, require gaining knowledge mainly from lecturers. This might be because they are difficult to learn independently for the first time and some information needs to be discussed with lecturers to make the learning process easier. This view can be seen clearly in the following example from the interviews.

In my subject, I need to receive the information and knowledge from my lecturers. I depend on them and the information they provide in the lectures. In easy modules I might be able to study personally, but the majority I need to learn during lectures from my teachers. I know there might be other resources, but lectures are better. (Sadiya, Science Y5)

There is no other choice, because my subject is so many and complicated accounting and calculations, I need to learn it from lectures. (Sara, Science Y4)

Students still assume their lecturers' authority

The analysis of interview data revealed that many students in both fields still assume their lecturers' authority and responsibility in the learning process,

although this perceived authority might differ in its extent from one student to another. For example, Mariam argued that there is a need for the lecturer because she plays a vital role in developing students' learning. She assumed that the lecturer has the power to support her students to achieve their learning goals properly and assess their performance. Therefore, she believed that academic and professional support from the lecturer herself is needed more than other resources in order to help students to reach their learning goals. This view is presented in the following quote:

Sometimes I need the lecturer because I do not want to feel over-confident. I think, finally, you need to be assessed by your teacher so you do not wrongly assume you have achieved the course goals. Lecturers could help you to achieve your learning goals and assess your performance properly. (Mariam, Humanities Y5)

Lecturers provide additional supporting materials

According to the analysis of interview data, participants from both fields stated that students are provided with supporting materials after lectures. For instance, Malak said that most lectures are made available to download afterwards through the E-Platform 'Blackboard'. This is a university system that was introduced to support student learning.

Now, most of lectures' materials are uploaded by lecturers to the Blackboard. They upload homework and requirements. Sometimes they suggest some materials and introduce strategies for learning some topics in our subject. (Malak, Humanities Y3)

Similarly, Maha showed that, at the end of lectures, students are provided with links related to the academic course via social networking sites that can help them to develop their learning and help them gain valuable knowledge to support their study field, as can be seen in the following examples from the

interviews.

Our teachers give us some links to useful sites after lectures, websites, Instagram or Twitter accounts. (Maha, Science Y4)

She puts links, accounts at the end of the lecture that we can follow later and develop our learning. (Abrar, Science Y3)

However, it was revealed that students are not only provided with links related to their study fields at the end of the lectures, but they are also given academic resources and links that are not directly related to their study fields in order to give them the opportunity to develop themselves. The participants in the interviews agreed that lecturers might feel responsible for the students' learning, so, after the lecture they also seek to send their students educational links, articles and studies that are not related to the course materials. Lecturers seemed to aim at developing students' educational level in general and encourage them to learn in a better way and give them some kind of control over their learning, as can be seen in the following quote:

Also, some lecturers not only give us materials that are directly related to the course content, but they also provide materials for development in the field in general, like articles, studies, pieces of research, something that supports our knowledge in the field. (Asma, Humanities Y4)

Lectures are not enough

Although some participants accepted the strong authority of their lecturers over their learning process, most participants thought that lectures are not enough to rely on to develop learning and showed a lower perception of the lecturers' authority. For example, some participants (for example Maysa, Mariam, Mai and Mona) argued that lectures and campus sessions are not enough, because

they only give students a summary of the material or an essence and foundation of the topic. Thus, they believed that students should seek for knowledge and develop their learning by themselves in order to achieve their learning goals.

The following quote is an example that shows this view:

At the end of the day, the university gives a summary and the basic information about the subject; any university around the world would do the same. You as a student need to develop your learning. (Maysa, Science Y5)

Similarly, other participants explained their views about this matter clearly as they stated that it is difficult to put up all the content and discuss it extensively during the lectures because of time limitation. They also added that, due to the limited time of lectures to present all the necessary information, students have to be responsible for their learning in order to reach the goals they are supposed to achieve. In addition, other participants indicated that a student might be too dependent and only get the minimum knowledge if she relied only on the lecture, because of its time and content limitations. Therefore, they believed that it is necessary for students to develop themselves and to be more responsible for their learning in order to avoid missing any important information and contents. The following quote is an example of these views about the limitation of lectures:

We need other resources, and to do more, because a lecture is limited to basic contents and limited time. When you follow the topic up after the lectures and access other resources, this significantly develops your learning. (Mai, Science Y2)

Furthermore, it was found that there are some difficult topics that need to be followed up. The participants illustrated that a lecture is not enough to discuss all topics because some of them are difficult and need to be followed up to understand correctly. However, these difficult topics seem to differ according to

the academic field. This was revealed by the data of the students in science colleges particularly. For example, Mody, who studied accounting, argued that her study is not easy and it needs more effort because her lecturer presents the lecture in a quick way, which leads to misunderstanding or losing of some important points, as can be seen in the following quote from her interview:

Lecture is valuable and necessary in accounting [her subject] because our subject deals with complicated numbers and processes, not everything is straight forward. In order to understand, we need to review the lecture content later and follow up difficult points. (Mody, Science Y2)

Ambiguous and abstract theoretical concepts in the lectures also hinder students' learning process during lectures. The analysis of the interview data revealed that students seem to lose interaction with the lecture and its content when a lecture is presented theoretically and where students are dealt with as listeners whose role is based on listening to the lecture. They argued that, although some topics do need practical skills in order to help students construct knowledge effectively, the lecturer merely presents the lecture in a theoretical way. This might be due to the lecture time being too short to present the lecture and its content practically. Thus, they thought that students benefit more and learn more effectively outside the campus by depending on themselves.

Some lecturers do not explain it well to us and we learn it by ourselves outside the campus. Because we listen to abstract concepts, sometimes ambiguous, we need to go and access other materials like videos, books; this makes it easy to learn. In lectures we already get the basics of the topic so we follow up and develop ourselves. (Wesam, Science Y3)

Moreover, lectures presented in a foreign language negatively affect students' learning and the extent of their acquisition of knowledge. For instance, Adhra indicated that the lecture alone is not sufficient for learning, especially with

lectures presented in languages other than Arabic. Thus, she illustrated that lectures in English might lead students, particularly those who do not have good level of English, to seek another approach to help them understand the lecture clearly and more deeply, as can be seen in the following quote:

It is important to study more after lecture and not to depend on it. Some lecturers present in English; I do not understand well; I attend just to register. I usually search later in websites and other resources and find references I need that support my Arabic language and the topic we study. I study them at home and understand better. (Adhra, Humanities Y1)

From the data analysis, it was also found that students thought that examinations sometimes went beyond what is given in lectures. It was revealed by Sara that some information that was included in the examination was not mentioned in the lectures, due to time limitation probably, which might affect students' results negatively. Therefore, she believed that students have to be responsible for their learning in order to develop their learning and prepare for examinations.

Information comes in the exams sometimes is not included directly in the lecture content. Because of that, it is a big mistake to rely only on the lecture notes and content to prepare for the exams. We need to search more and learn more about the topics. (Sara, Science Y4)

Furthermore, other participants expressed the view that the lectures alone are not enough and students need to take responsibility for their learning because depending on one source of knowledge may not cover all the aspects they need. Thus, depending only on university materials may be limiting and not the right choice for the student, which might lead to poor results. Furthermore, others indicated that the content of university curriculum was out-of-date, which makes them more independent in the learning process in order to update their

knowledge. The following quotes are examples from the participants' interviews:

If we rely on one source of knowledge in our learning we won't cover the aspects of the topics that we need in the future. University modules might be limited and not the choices of the students. (Amina, Science Y2)

Curriculum does not give everything in the field, it is also quite old, so we need to update our knowledge. (Monirah, Humanities Y5)

6.3.1.2 Students' independence in learning

Although a minority of students showed less control over their own learning, and assumed a stronger authority of their lecturers in the learning settings, as shown in the previous section, the data analysis revealed that most of the students thought that they are independent in their learning and that they have control over their learning process. This issue is presented in this section.

University students are responsible for their learning

According to the analysis of interview data, most participants believed that learning and its process is the student's responsibility. Others illustrated that the university student is totally in charge of her learning and sees herself as an independent learner. The following quote is an example of these views.

If the student is not willing to learn properly, she would not learn even if she attended lectures. So, learning and its process is the university student's responsibility. (Mariam, Humanities Y5)

The participants expressed the view that independent students are aware of what needs to be worked on. They feel responsible for their learning and it is their personal duty to learn. Thus, it can be seen that independent students can search, read and seek for others' experiences by themselves in order to develop their learning and achieve their learning aims.

Because I know what I need, I am aware of what I need and the knowledge I need to seek in the future, each student has her own goals and strategy. At the end of the day I know what I need and try to develop my learning according to that. (Mona, Science Y5)

Students depend on other students

Although students showed independence in their learning process to some extent, they still assumed that they need their peers who might help them during their learning. The interview analysis showed that some students depend on other students in their learning process. For example, Wreef indicated that students cannot work alone, and they need a group of colleagues to help them to develop their learning. Eman argued that students depend on their group of fellow students when they face difficulties with their assignments and they seek support from these others to facilitate the learning process.

Sometimes I cannot study alone; there must be someone, a group of colleagues. I need to be with this group to learn properly. (Wreef, Humanities Y1)

However, these colleagues can have a negative influence on some students. Some participants illustrated that, in these groups, there are students who seem to be lazy and depend overly on their colleagues to gain knowledge in a short time. These students find the answers to their questions from these groups without their own effort. For instance, Malak stated that some students who get support from these groups plagiarize their colleagues' ideas related to their assignments.

There are some students who depend on asking the others in the groups about all the information need. They get answers without any effort or searching. This is one of the disadvantages of these groups. (Malak, Humanities Y3)

Similarly, it was revealed that even though students who help their colleagues for learning receive a chance to extend their knowledge at the same time, this

may lead to a negative effect on their colleagues' learning. They might be more dependent on others in their learning, as can be seen in the following quote.

To be honest, it is a double-edged sword. Sometimes I help other students; when I help them I develop myself, extend my knowledge by helping them. At the same time, I see them being too dependent. Although it is good for me, when they see me always accept to help, they ask me to do their job. (Noura, Science Y5)

This dependence on others might lead some students to deal with this help as a money-making business, according to some participants' point of view. It was stated by Marwa that there is some ready research available as a business for those students who depend on others in order to save their own effort. She added that some intelligent students benefit financially from that through working on this research to help others achieve their goals.

Some students want ready work, even research, they bring them ready. Some students do it for the others as a business; they do it for money. (Marwa Humanities Y5)

Lecturers' traditional views about learning do not support personal learning

The interview data analysis revealed that students believe that lecturers' traditional views about learning do not support students' personal learning. The participants said that lecturers see university classes as the only learning context and their responsibility for students' learning is only during the lectures.

Also, there is the traditional view of the students among some teachers who think that we cannot learn independently without their teaching in the class and see the university as the only learning context. (Mariam, Humanities Y5)

Moreover, other participants argued that students use social networking sites for learning aims, such as creating groups including both students and their

lecturers to introduce an interactive context among them. However, lecturers do not give their students enough support to develop their personal learning, but they see their responsibility as limited to university settings and lectures. They do not provide materials that might help their students to develop their personal learning.

They [lecturers] will not benefit us in these groups, because they do not see it as part of their responsibility to support our personal learning. They think their responsibility is limited to the university settings. (Sadiya, Science Y5)

Similarly, others argued that there is a lack of encouragement for personal learning from lecturers. They do not encourage students to depend on themselves in order to improve their educational level. They believed that this might be because of limited time in the lectures or the large number of social groups that hinder lecturers from discussing all the topics that students need to support their personal learning. Other participants indicated that lecturers see students as unprepared to learn personally. Thus, lecturers see their responsibility for students' learning as based only on the lectures. The following quote is an example of their views:

Unfortunately, they do not support us, this is probably because the limited time they have and the large number of student groups. Maybe they do not have time to communicate. Some of them think course content and books are enough and the teachers' role is only during the lectures. (Aseel, Humanities Y5)

Lecturers and students are both responsible for learning

From the interview data analysis, it was also found that some participants thought that lecturers and students share responsibility for the learning process. For example, Maha believed that the lecturer's responsibility for the students'

learning is not exclusive, neither is the student's responsibility for learning. Therefore, she thought that learning is the responsibility of both lecturers and students at the same time. She confirmed the importance of both lecturers' and students' responsibility for students' learning by saying that, after the lecturer presenting the lecture, students should start to apply what they have heard by conducting a search related to the study field and extending knowledge in the field.

Honestly, we share the responsibility with our teachers ... We need to extend our knowledge after lectures. Lecture is important, it provides the basic knowledge but I need to apply what I learn myself. Nowadays, I conduct research, I use the knowledge I learn from my lecturers. I think I am responsible about my learning, but also lecturers have an important role in our study. (Maha, Science Y4)

However, other participants argued that the responsibility is not equally on students, but primarily on lecturers. The lecturers must teach students and give them what they need and then this responsibility moves on to the students whose role is to review topics from the lecture and develop their learning personally.

It is the lecturers' responsibility to deliver the topic contents firstly. The student then needs to do further study and learn more about it at home. It is a shared responsibility between both of them. (Ohood, Humanities Y5)

6.3.2 Student expectations of the university in relation to personal learning

In this sub-theme, I present findings related to the students' expectations of the others at university, especially their lecturers, during their learning process. After I present their expectations, I present findings related to the reality in the learning settings in relation to these expectations in terms of what the students

actually receive and what they are supported in during the process of their learning, which also can indicate their expectations.

6.3.2.1 The students' expectations of others

University support is needed

It was agreed by most of the participants in both fields that students need support from their university in order to achieve their learning goals. It was clear that students need special sites as a reference and to keep their lectures and study materials in a way that enables them to come back to them at any time during their study. Others wished to be provided with professional accounts in their field of study, through social media for example, which allows students to get all information, E-books and links that might support their personal learning.

The following quote is an example from the interviews:

I hope the university would provide special sites in our subjects, for example mathematics sites, that include all books and materials and communication with professionals in the field that we can communicate with and benefit from, through any popular platform or network. (Bedoor, Science Y3)

Furthermore, in order to receive good support for personal learning from the university, an E-library would be needed, according to the students. The participants in the interviews argued that there is a need for an E-library in order to help students meet their own learning goals and develop their learning personally. Others saw an electronic library at the university as an important component that is needed to support students' personal learning. This can be seen in the following quote from the interviews:

It is better if they could provide an electronic library than the normal library; this would help in learning at home. There should be an electronic library at the university; I think they can provide it easily. (Malak, Humanities Y3)

Other participants also claimed that the university should provide each student with an online account to facilitate communication with lecturers. They saw the university e-mail as a very important tool to be used properly and activated to facilitate communication with university staff and lecturers to get help and to develop their personal learning. Other participants perceived SNSs as more popular among students. Thus, they wanted the university to establish social accounts for each of them via a professional online platform in order to make the personal learning process easier.

There was no encouragement or support for that. At least, each student needs to have active university email so she can communicate with teachers, but unfortunately, we do not have emails from the university emailing system. (Aseel, Humanities Y5)

The thing I believe is important is creating an online environment that we have account in to communicate and get materials through. (Reham, Humanities Y2)

A good university library is another important component needed to help students to develop their personal learning. It was shown by Marwa that the university library needs to be updated and extended from time to time in order to meet student expectations. She argued that study fields are constantly evolving, which requires students to be up-to-date by searching for new books or articles that are available in the university library in order to support their learning. However, it was clear that the university library did not meet the students' needs, especially those students whose fields of study require greater dependence on the university library, because the references that are available are old or the number of books and journals are limited, as can be seen in the following quote from the interviews:

We need new books in the library. Only this year the university started to seek quality and development. Our department is now requesting new books to be provided by the library; we do not know when that would happen. I am about to graduate and the books available are still old. There is no support in this matter to be honest. (Marwa, Humanities Y5)

In addition, other participants believed that, as technology including SNSs is currently used among university students, they should be allowed to use smart phones on the university campus to support their personal learning. (Smart phones, especially phones provided with cameras, are not allowed on the female campus.) For example, they stated that using smart phones during lectures would give students the opportunity to access online materials and to record the lecture in order to go back to it later.

We should be allowed to use our smart phones on campus so we can access online materials, communicate with our lecturers. But the use of smart phones is banned. (Hasna, Humanities Y5)

Similarly, more flexibility in the university's system would also encourage lecturers to support students' personal learning through using SNSs in the lectures, from the participants' point of view. The participants argued that introducing technology and SNSs during the lectures would help lecturers to encourage their students to learn personally through presenting links and videos at the end of lectures or showing some specialist accounts related to their study fields. However, others claimed that students need training courses related to their study fields, which might support their personal learning, rather than using SNSs in lectures.

I think they should allow using our phone in campus. This encourages lecturers to engage in this process and to show us how to make the most of it. (Wesam, Science Y3)

I believe they should support us by providing on-campus training courses related to our subject. (Ghadeer, Science Y1)

Technical support needed from the university

The interview data analysis revealed that technical support from the university is needed and expected by students. It was clear that the majority of the participants argued that the university should have provided laboratories for some departments that require them, including electronic equipment and internet connection to enable students to reach their learning goals. They also claimed that, although the university provides the students with an electronic site called (Banner Maker), they need an effective formal account in an online environment in order to support their personal learning process. They argued that this site did not give them the benefit they expected. It aims to give students just information about the lecture itself, such as its time and venue.

We need an interactive online environment to facilitate seeking information. They provided Banner System, but it is only used for lecture times and locations and these kind of things, nothing else. (Aseel, Humanities Y5)

The other technical support that the students expect is the use of smart phones at the university. Most participants agreed that students would bring their smart phones so as to use them in their free time for educational purposes such as doing homework, preparing for the next lecture or supporting their personal learning. However, as smart phones have been banned from the university (female campus) for several reasons, which will be discussed later in the cultural aspects section, there is a need for alternative technical support for students' learning. For example, Ohood indicated that using a video camera to record the entire lecture and then uploading it to the formal online environment created by the university would give students the opportunity to listen to the lecture again and thereby support their personal learning.

I hope they allow us to use our phones or provide alternative devices. (Reham, Humanities Y2)

Support we need from university is the active online communication and an alternative of mobile phones that we can use during the lectures and on campus. (Abrar, Science Y5)

Lecturer's help is needed to confirm personal learning outcomes

According to the data analysis, lecturers' help is needed and expected by the students to confirm their personal learning outcomes. The participants claimed that they need support from their lecturers to confirm their personal learning outcomes. This might be because they feel that the lecturers have more experience than them, which leads students to seek help from their lecturers in order to reach desired outcomes through learning personally. The following quotes are examples of this view.

I am a student, she is the expert in the field; not all the information I find is accurate. I need her help to make sure I am in the right direction. (Bedoor, Science Y3)

When I study by myself, I need my teacher's help to check what I learned is correct. (Noura, Science Y5)

Moreover, Sara and Noura explained that it would be wrong to rely entirely on yourself to study and get the information, particularly in the first years of study, because they might not know if they learned in the right or the wrong way. Thus, they are keen to obtain support and guidance from their lecturers, especially at the beginning of their study until they obtain the skills of learning independently. Similarly, Marwa thought that students do need support from their lecturers to develop their personal learning. She saw lecturers as directors, whose role is to direct and guide students in the right direction in order to gain desirable results personally. The following quotes are examples from the interviews:

I am afraid; I do not know if I learned right or wrong; this is the difficult thing. If there is support and guidance from teachers it would be easier, and I would be more confident about what I learn. (Noura, Science Y5)

They made us search about information independently. I think it is wrong, there must be someone expert. When I learn something, lecturers should make sure it is the right thing. (Sara, Science Y4)

Good support led to good experience

It was revealed by the data analysis that good support from others led students to build good experiences of learning personally. For example, the participants in interviews argued that when students received good support, whether from lecturers or others, it drove them to gain good learning experiences, in a way that enabled them to learn more independently. Significantly, it was clear that most students who received support in this manner tended to be more independent in their learning and tried to develop their learning personally. This might be due to the suitable support that they received in the first years of their study that gave them confidence to learn independently.

Because I was a new student, now I know how to study on my own. I used to need support and guidance, but now I do not need it any more. This is because of the support I got at the beginning. (Mai, Science Y5)

In the first year, the online platform was new to us, but our teachers introduced it in a good way and helped us to learn how to deal with it; they used to make us engage actively with it. I think this has made us good in using these platforms from independent study. (Noura, Science Y5)

Moreover, others believed that the interactive environment encourages students to build good experience with these online environments which enables them to learn personally. For instance, Asma stated that lecturers who were active online and who created a good learning environment through these platforms may lead students to build good learning experiences, which could

encourage them to learn further personally. Ghadeer indicated that seeking knowledge that is related to the study field, such as following experts via SNSs, would provide students with good experiences that could help them to develop their personal learning.

One of our lecturers is always active online even during the lesson; she tries to engage us; she always posts many course materials and discusses topics we study. She made us believe in this way and learn more through these online platforms. Actually, this made our learning better. (Asma, Humanities Y1)

Practical aspects in modules would improve personal learning skills

It was clear that more practical aspects and practice in modules would improve students' personal learning skills, according to the students. The participants claimed that, in some modules, the lecture contents are just presented theoretically, which negatively affects students' personal learning skills. Therefore, they argued that most students see practical aspects in the module as one of the most important features that could help them develop their personal learning skills.

Also, paying more attention to the practical parts of the modules by the university. This would improve personal learning among students. (Mariam, Humanities Y5)

6.3.2.2 The actual level of support the students receive

As the students' expectations of others regarding their learning processes were presented in the previous section, the following section presents the actual situation regarding their personal learning processes and the roles of others in their learning.

Lack of support in personal learning

The interview data analysis revealed that participating students indicated a lack

of support in their personal learning. The participants believed that the university did not establish a high-quality library to provide books and other materials they need as the cornerstone of personal learning. They stated that students need an appropriate environment for reading within the university library in order to support and develop their own personal learning, as can be seen in the following extract from the interviews.

The university does not provide a good library and study spaces. These important facilities would benefit us a lot. (Amani, Humanities Y4)

In addition to the lack of a high quality library or study spaces, updating the library contents is another issue that faces students and needs to be considered by the university. Other participants argued that some study fields require up-to-date materials, articles and books to be available in the university library. However, the library neglected this important aspect and its books are out-of-date to some extent.

Psychology is developing field; most of the references in the library are very old and do not help as always there is new aspects in theories. University should support us by providing the references we need and updating the library materials so we can develop our learning personally. (Marwa, Humanities Y5)

On the other hand, other participants see the lecturer as an important element in supporting their personal learning. For example, Wreef argued that there is a lack of support related to students' personal learning from their lecturers, particularly when they face difficulties in the personal learning process. She added that students need at least guidance from their lecturers to guide them correctly in order to develop their personal learning. Moreover, Mariam stated that students receive help from their lecturer in how to use the library, but not in relation to their personal learning process. She indicated that, in order to

learn how to learn personally, students need support from their lecturers.

At least they should guide me to the right things I do when I have any tasks or research. I need them to tell me where to go and how to act in order to achieve the tasks and develop my own learning. At this stage, I need support to develop my learning. I need someone to guide me to go on the right direction. (Wreef, Humanities Y1)

I have not received help so far, only in how to use the library. They do not seem to be keen to help or provide support in relation to personal learning. (Mariam, Humanities Y5)

Lecturers' use of social networking sites (SNSs) for personal learning is limited

Because of the popularity of social networking sites (SNSs) around the world and their use for many purposes, particularly educational purposes, participants from both fields argued that lecturers' use of SNSs is too limited. For example, the participants thought that some lecturers do not believe in the benefits of SNSs to develop personal learning among students. According to the students' perceptions, some lecturers see using SNSs to support students' personal learning as wasting time and their role is to present the lecture and its content in the university classes. Moreover, others thought that some lecturers are older and do not have the necessary SNS skills to enable them to communicate with their students to enhance their personal learning.

Some lecturers think that social network use is time wasting; they prefer to give us knowledge directly during the sessions. (Eman, Humanities Y5)

Our lecturers are old; they only use emails. (Monirah, Humanities Y5)

Furthermore, other participants believed that, although some lecturers have accounts in SNSs, they do not have sufficient time to communicate with students to support their personal learning through, for example, sending links

or important information related to their study. However, other participants expressed the view that some lecturers have accounts in SNSs, but they do not use them in an effective way. The lecturers communicate with their students only to inform them about the lecture's time and location or to post course related materials.

Lecturers give lectures and go; there is no communication with lecturers, at least to send materials and discuss the process of tasks. (Ghadeer, Science Y1)

Large number of students limits lecturers' support

According to the interview data analysis, the large number of students in each class limited the lecturers' support for personal learning. Mariam argued that lecturers might not have enough time to help students in personal learning due to the large number of students in each class. She added that some lecturers need to present large number of lectures daily, so they seek to deliver the lecture and its content before the end of the session regardless of whether students need help or not, as can be seen in the following quote.

This could be because they teach a large number of students in each session and the large number of sessions they teach. I remember a lecturer who did not have time to finish the topics she was teaching. In this case I do not think they will be keen to provide any support to develop our personal learning skills. They have content they aim to deliver before the lecture finishes. (Mariam, Humanities Y5)

6.4 Social networks; students' opinions and purposes of use

As the aim of the current study is to explore the use of SNSs by university students to develop their personal learning, this section presents findings about SNSs and their use among students. Its findings were divided into two parts: the first part presents the students' opinions about the use of SNSs for general

use and for personal learning, and the second part shows the purposes of students' use of SNSs.

6.4.1 Relationship with social networks

In this section, I present findings related to the students' relationship with social networks both for general life use and for personal learning.

6.4.1.1 Relationship with SNSs in general life

Almost all the participants in this study showed strong relationships with social networks and they seemed to use it for many different purposes.

Access every day

From the interview data analysis, it was revealed that university students access SNSs every day. It was agreed by the participants in both fields that they access SNSs every day because they see these sites as a very important part of their daily life. For example, Bedoor added that she accesses SNSs around 15 times a day for different purposes.

*It is very important in my daily routine; I access them every day.
(Hasna, Humanities Y5)*

*I access my accounts in social media around 15 times a day.
(Bedoor, Science Y3)*

The students thought that accessing social networks every day would keep them up with what is going on in the world. Others seem to access networks daily to read in their areas of interest and get further information related to their study fields. Interestingly, some of them indicated that they prefer to communicate with others through social networks to any other way of communicating. These views can be seen in the following extracts from the students' interviews.

I prefer to communicate with people through social media rather than any other way. I cannot leave the social media; it is the first thing in my day! (Monirah, Humanities Y5)

I search any interesting news regarding my subject and about history. This is a daily routine in my life. (Marwa, Humanities Y5)

Using SNSs from an early stage of life

The interview data analysis revealed that SNSs were used from an early stage in most participants' lives. For example, Mariam saw herself as an old user who started using these sites at the beginning of secondary school. The following quote is an example from her interview.

In my case, I started using these sites from an early stage of my life, at the beginning of high school. (Mariam, Humanities Y5)

SNSs are an important part of students' lives

According to the analysis of the interview data, SNSs are an important part of students' lives. For instance, most students saw SNSs as a very important part of their lives and they have a strong relationship with these sites, because these sites enable them to communicate with others and search for information they are interested in, according to the students' point of view.

Indeed, I cannot live without it! I communicate with the others and find all information I need on them! (Mody, Science Y2)

It became an unavoidable part of my daily life. I cannot survive without it! (Noura, Science Y5)

Furthermore, other participants described their relationship with social networks as a sort of 'addiction'. This might be due to the ease of access of these sites and the significant role they play in the students' lives.

To be honest, recently it is a kind of addiction. I used to be a moderate user, I used to use it in my breaks, but now I cannot even switch off my phone because of the social networks! Even

when I am so busy with my exams I keep it beside me and keep an eye on it. (Noura, Science Y2)

I am like addicted. I cannot survive without accessing my accounts regularly. I always use it! (Reham, Humanities Y2)

However, adopting SNSs as a part of students' lives may negatively affect their real social life. For example, Sadiya expressed the view that, although SNSs are an important part of students' lives, their use may create an atmosphere of isolation that leads students to lose the process of direct communication with others.

Unfortunately, it [social networks] became too important for me. When I lose internet connection I become mad and feel lost. I feel I became too dependent on Snapchat, Twitter and WhatsApp as the only way to communicate with others, in a way that might have affected our real social life. (Sadiya, Science Y5)

The students' strong relationship with SNSs

It was found from the data analysis that SNSs are seen as the 'close friend' of some of the students. Some participants agreed that they have a strong relationship with SNSs, in a way that makes them see these sites as friends that help them to reach their aims. Others added that students perceived SNSs as real friends and closer than 'human friends'. The following extracts are examples of these views.

I can say they became my real friend, closer than my human friends. They have never been boring! (Laughs) (Mariam, Humanities Y5)

I am strongly connected to social networks. It is like my friend now. (Mona, Science Y5)

I have a strong relation with social media; you can say it is my friend. (Sadiya, Science Y5)

However, it was found from the interview data analysis that a few students have no strong relationship with SNSs. Some participants agreed that, although most

students showed a strong relation with SNSs where they play an important part in their lives, SNSs are not that important to them, as can be seen in the following quote.

*Not that much, sometimes when I need to search something.
(Faiza, Humanities Y2)*

Digital age natives prefer to communicate with SNSs

The interview data analysis revealed that digital age people prefer SNSs to other means of communication. The participants argued that they do prefer SNSs to communicate with their colleagues and others rather than other ways of communication. This might be because of SNSs' features, such as providing students with pictures and videos at the same time, which might facilitate the process of communication. They also stated that SNSs allow students to communicate with more than one person at the same time, which gives them a chance to receive more information and multiple perspectives.

We like online communication, you know, through voice, text, video and pictures. I myself prefer that we communicate through social networks. (Abrar, Science Y3)

It helps a lot regarding communicating with more than one person at the same time. You save time and get more responses. (Abrar, Science Y3)

Moreover, other participants believed that communicating with others through SNSs is better than communicating via traditional face-to-face means. They justified that by saying that, in addition to the ease of using SNSs, students can communicate with their colleagues at any time to discuss important topics or distribute tasks between them, whether individually or collectively through groups, as can be seen in the following quotes from interviews.

In this generation, I think people prefer to read and discuss topics in social media rather than the traditional ways. (Mariam, Humanities Y5)

Snapchat, Instagram, Twitter and WhatsApp with family and friends. I prefer to use these programmes to communicate, better than face-to-face communication. (Adhra, Humanities Y1)

SNSs enable students to develop their personality

According to the data analysis, it was discovered that SNSs develop personality in the participants' view. The participants indicated that it is not only experiences that develop students' personality, but SNSs also develop their personality. For instance, SNSs enables students to develop their thoughts, obtain languages and expand their information and perceptions generally. They added that SNSs give students an opportunity to develop their discussion and dialogic skills.

This thing, I think, has developed my personality, my language, my thoughts. It has given me more knowledge and widened my literature. (Mriam, Humanities Y5)

Indeed, using social media developed many skills like dialogical and discussion skills and developed my personality in general in a considerable way. (Eman, Humanities Y5)

Other participants thought that SNSs enable students to engage in an open social environment that helps them to communicate with others from different places and cultures, in a way that contributes to developing their personality. Furthermore, others stated that SNSs help them to develop their learning of other languages, through loading applications that aim to teach the language that they want to learn or enrolling in language courses that are available online via groups in SNSs such as WhatsApp.

In Twitter, I communicate with people from different cities and countries; it helped to me develop myself. (Abrar, Science Y3)

It was useful in developing and learning other languages. I engaged in groups that helped me to improve and develop other languages, cultures. (Eman, Humanities Y5)

Face-to-face communication is still important

Although many students indicated that they prefer to communicate through SNSs, it was also revealed that face-to-face communication is still important according to some participants. Some participants showed that, although some students prefer SNSs over face-to-face communication, some students still prefer to communicate face-to-face. The following quote is an example of this view.

I do not depend on it alone in my communications with people; I like face-to-face communication. (Mariam, Humanities Y5)

6.4.1.2 Opinions about SNSs for learning

SNSs are important for personal learning

Most participants believed that SNSs are not only important for social life, but they are also a very important element in developing their personal learning. They explained that, with the emergence of the phenomenon of SNSs, it has become necessary to use them and take advantage of them in order to develop personal learning.

Social media are very important for developing my personal learning. (Wreef, Humanities Y1)

For me, I think it is very important to take advantage of technological evolution. It is necessary to learn through social networks as they help a lot in how to develop and find what you need. (Asma, Humanities Y4)

The participants tried to justify the importance of social networks for personal learning by noting that they make personal learning easy. For example, SNSs help students to develop their personal learning by searching for topics related to the study field in an easy way and at any time they want. They also support them in gaining a deeper understanding of the topics presented in previous

lectures in different ways, such as watching videos or reading online materials, which facilitate the personal learning process, as can be seen in the following extract.

I feel that developing our personal learning through social networks has benefited us a lot. Indeed, it provided us with bigger space for searching and for discussion. It facilitated many things that used to be difficult. (Mai, Science Y5)

In addition, other participants argued that SNSs provide students with information that they need more than the university classes do. Rather, they explained that SNSs give access to rich information that enables students to receive more useful knowledge, which can lead to developing their personal learning significantly.

I mean, it is important because students could learn and obtain information in social media much more than the university classes. (Maysa, Science Y5)

Furthermore, others indicated that SNSs are very important for some study fields, particularly those that require personal learning. For instance, Malak said that some topics in her study field need to be learned personally, such as doing research, in order to have a diversity of information. Therefore, she saw SNSs as the appropriate tool for providing students with the required content and helping them to exchange information with experts and peers to develop their personal learning. Reham argued that some study fields, such as Sociology, do need SNSs, because they enable students to communicate with a large number of people in any community, which could enrich their understanding of any issue they study and facilitate their personal learning.

Very important, because some subjects require searching for a large amount of information. Sometimes we need to prepare detailed presentations about specific topics. Social networks

widen searching scope and help us to get more information and see others' opinions about any topic. (Malak, Humanities Y3)

Because my subject is sociology, I need to access contexts like social networks and read for many people. It has an important role in my study. (Reham, Humanities Y2)

SNSs motivate students to learn personally

In addition to what was presented earlier, social networks were reported to motivate students to learn personally. Most participants showed several features of SNSs that might lead to motivating students for personal learning. For example, Ghadeer argued that SNSs create an interesting atmosphere for learning, while Ohood believed that professionals' and experts' contributions in SNSs motivate students to learn more personally.

Social media and Youtube motivate me to learn because they provide interesting contexts for study. (Ghadeer, Science Y1)

Social networks encourage me and motivate me to learn and do research. I noticed that I knew how to write from the writers I follow in Twitter; before, I did not have this ability. (Ohood, Humanities Y5)

Moreover, other students, for example, Eman argued that the peer support that is available on SNSs is another important feature that might motivate students to learn personally. Furthermore, others indicated that good quality materials produced by others in SNSs motivate students to learn more personally. Finally, others stated that other colleagues' achievements in SNS groups motivate students for more personal learning.

There is a kind of support and motivation when using social networks. When you post something, you will receive lots of responses and ideas from colleagues; some of them would share any related materials with me. This is helpful and helps you to develop yourself. (Eman, Humanities Y5)

In the WhatsApp groups, when I see other colleagues enthusiastic to learn and discuss their achievements, ask questions, I feel more motivated and work harder to learn. It is

*also important during the exams, it makes me work harder.
(Ohood, Humanities Y5)*

SNSs' use for personal learning is interesting

Many participants stated that using social networks for personal learning is interesting. They believed that personal learning becomes more interesting when performed through SNSs because of their time flexibility that gives students the opportunity to learn at any time they want without any pressure. They added that SNSs allow students to study at home and anywhere they prefer, as can be seen in the following quotes from their interviews.

Networks make learning more interesting. (Ohood, Humanities Y5)

Maybe I like it because I can access and work at any time, at home, on my bed, at university or anywhere. You are not limited to study in specific time or place. (Mona, Science Y5)

In addition, Maysa indicated that students see SNSs as interesting for personal learning because they allow students to use their native language to develop their personal learning. Some of the participants believed that it might be because of the interactive functions in SNSs and their design that support students to learn personally, while others thought that SNSs are interesting for personal learning due to the feature that enables students to communicate with people who share the same interest. The following extracts are examples of these points of view from the interviews.

Networks are more interesting to learn through because you choose your study time. Sometimes I search about information in Arabic [the participant's first language] so I understand better and more interesting than studying in English. (Maysa, Science Y5)

It is a very interesting way of study. The design, colours, features, everything makes them interesting. (Mona, Science Y5)

According to other participants' views, it was clear that there are further SNS

features that make personal learning through social networks more interesting. For example, the participants reported that SNSs as new technology could attract students to learn personally, whilst others expressed that SNSs give students the freedom to choose the way of personal learning or time they want to learn. However, others argued that the main feature of these sites that make personal learning more interesting is providing students with the opportunity to learn independently and take control over their own learning and process. The following quotes are examples of these views.

It is not boring! It is new technology where all of us like it. (Aseel, Humanities Y5)

Yes, very interesting, especially because you have the control over what you want to learn and the process of learning. You do not need to follow others' instructions in how to learn or how to do things. You do it in your way with people you want to listen to. It is much more interesting than the other ways of learning. (Mariam, Humanities Y5)

6.4.2 Reasons and purposes of using SNSs

In this section, I present findings about the purposes given by participants for using social networks.

6.4.2.1 Reasons of using SNSs

As presented earlier, many students preferred social networks as a platform for their personal learning. This section discusses why they prefer social networks for their personal learning.

SNSs are most popular

The popularity of social networks seemed to be a major element that influences the students' use of these sites. Most participants indicated that they use SNSs

as important sources of information because they are the most popular source among people, in their view, as can be seen in the following extracts.

I think because it is the most popular context of communication at the moment. Because of that it has an important role in personal learning. (Abrar, Humanities Y5)

Because it is the most popular programme nowadays. (Maha, Science Y4)

Furthermore, other participants argued that most students have used Snapchat as a new site because it is the most popular platform among their friends and colleagues, as can be seen in the following quote.

My friends use the sites for communication, all of them, especially Snapchat because it is most popular. (Wreef, Humanities Y1)

Most people use SNSs

It was clear that students use SNSs because most people use them. For example, the participants said that this environment gives access to a lot of people so they expect to find help from others there, as can be seen in the following quotes.

Most people use these networks; I expect to find helpful information in it. We can exchange benefits with the other users. (Sadiya, Science Y5)

Most people use it. I search in networks that most people use so I can find what I want and get help in my learning. (Amina, Science Y2)

The participants added that students try to find a context where their own community exists and interact, so SNSs were perceived as the environment that can offer that.

Most people I know contact through WhatsApp, for example, friends, colleagues and family members. So, I joined to communicate with them. (Sadiya, Science Y5)

SNSs are free, unlike other sources

Another reason that highlights the importance of social networks for the students' personal learning is that it is free of charge, unlike other sources such as books. The participants showed that they find the information they need in SNSs instead of buying a book, which allows them to save their time and money, as can be seen in the following quote from the interviews.

The other feature is that networks save money. Instead of buying a book to find some information in a topic, I find what I need in the social media and that's it. It saves time and money. (Aseel, Humanities Y5)

However, the participants argued that although students find online books in SNSs easily, there are issues that need to be considered carefully, such as the issue of downloading online books, which might be illegal in some cases.

The cost of books is high. Sometimes you find any book you need in the social media and download it for free. (Wreef, Humanities Y1)

Books need more time than SNSs do

It was discovered from the data analysis that books require more time than SNSs do, according to some participants. For example, the participants indicated that, in books, students take a long time to reach the information that they need, unlike SNSs that provide students with very important points in the topic that they looked for. Thus, students feel bored when using books in order to find information, as can be seen in the following extract from the interviews.

Books take more time and effort to find the information you need and to summarise it. Social networks give the summary of what I need. You do not need to spend a long time. (Sara, Science Y4)

6.4.2.2 Purposes of using social networks

In this section, I present findings concerning the purposes for which the students use social networks in relation to their studies.

SNSs to support course materials

Supporting the course materials and processes were found to be some of the main purposes for which the students use social networks. The participants showed that they communicate with their colleagues via SNSs to get information about course materials and processes, while others explained that students exchange information about the course with their friends. Furthermore, the participants said that students might find entire references in SNSs that support their course materials and processes and help them in doing tasks.

In social networks, we get help from other colleagues in the study tasks, like homework and other tasks. (Eman, Humanities Y5)

At any time, I need any information related to the course, I can get it from my friends in the WhatsApp group. We share doing homework and some presentations through WhatsApp. (Abrar, Science Y3)

SNSs for further information on topics

The data analysis showed that SNSs were used by students to obtain further information on the topics they study. According to the participants' view, students use SNSs to receive further information, particularly when the lecture is not enough to get all the information needed, whereas other participants showed that students use SNSs to obtain further information if the topic presented in the lecture is especially important for them.

Sometimes teachers do not make the topic clear, so I search more about it in the social media and see what people say about it, in addition to reading books and accessing specialised websites. (Amani, Humanities Y4)

Overcome the lack of practical aspects in lectures

According to the data analysis, it was revealed that SNSs could help to overcome the lack of practical aspects in lectures. It was agreed by most of the participants in both fields, science and humanities, that students used social networks for learning, because most lectures were presented theoretically at the university. Therefore, students saw SNSs as appropriate tools that help them to get a better understanding of the topics presented earlier, because they show the topics in both a theoretical and a practical way, and they find multimedia materials that show the application of these topics.

Teachers, not all of them but most of them, do not show practical aspects of the subjects like in videos for example. No, they explain the topic verbally and quickly and finish the lecture. I will be a specialist; I need to support what I learn with at least videos to show how we apply what we learn. (Marwa, Humanities Y5)

SNSs for assignments

Another purpose of using social networks among students was for doing assignments. The participants agreed that SNSs support them to do assignments more effectively than any other way because they can find materials and opinions, as can be seen in the following quotes.

In research and assignments, I find helpful information and similar topics that help me to do them. (Noura, Science Y5)

It helps me a lot, especially before assignments and homework. (Mariam, Humanities Y5)

SNSs to stay up-to-date in the study field

Another important purpose of using social networks among students is to help

them stay up-to-date in their study field. Most participants argued that they use SNSs in order to develop their learning and knowledge in their study field, because these sites provide up-to-date information and the latest knowledge, as can be seen in the following quote.

For me, I feel that networks made me aware of all new issues in my subject. I see new topics and people's reactions and opinions on them. (Asma, Humanities Y4)

Social networks for general training courses

According to the interview data analysis, SNSs are used for general training courses and development sessions. The participants showed that SNSs give them the opportunity to develop their level of learning where they know about training courses and sessions related to their study field. They added that students received benefits and support from SNSs and particularly SNS groups that enable students to attend online training sessions, as can be seen in the following quote.

I attend online training sessions; these sessions are presented through social media. I also get information about the latest available training session from professional accounts in the social media like Snapchat and Twitter. (Sara, Science Y4)

SNSs for notifications

It was also found from the interview data analysis that SNSs are used for receiving notifications about the course such as timetables and examination dates. For example, SNSs were used among students to get notifications so they are informed about the course materials, timetable changes, lecture times and venues, as can be seen in the following extract.

I joined groups to receive information and instructions about the course, timetables, exams and tasks. I always get reminders about these important things. (Maysa, Science Y5)

SNSs for future development after graduation

The data analysis showed that social networks are adopted by students for their future development, after graduation. The participants believed that SNSs are very important tools that would be used after graduation in order to help them develop their personal learning and update their knowledge. However, it seemed that this view might come from the students' feelings about their responsibility for personal learning after graduation by choosing the tool that they think would help them to develop their personal learning. For example, the participants indicated that, although students depend somewhat on the university in the learning process, they feel they will need to have more responsibility for their learning, particularly after finishing university, because they recognise there will be no further support from academic staff after graduation. This is why they think that SNSs are the ideal tool to enable students to develop their personal learning independently in the future.

When I graduate, I think I will need social networks more for personal learning and to keep my knowledge in my subject up-to-date. (Mai, Science Y5)

Moreover, it was clear that the participants would use these sites to keep and save the information that they gained previously from the university, which might help them in the future. Other participants showed they would use SNSs more after graduation so as to update the information obtained in the past and get further information that may give them great benefits regarding their subject knowledge in the future.

After I graduate, I will access more and find information to develop myself and to keep the knowledge I got in the university. (Bedoor, Science Y3)

After I finish, so the knowledge I gained does not go, I need to update my knowledge and keep learning. I need to continue developing myself. (Bedoor, Science Y3)

6.5 Affordances of social networks in personal learning

This section presents findings related to the affordances of SNSs that the students recognised in relation to the use of these sites for personal learning. The data analysis revealed that there were two main affordances of SNSs, namely technological affordances and educational affordances. These two affordances are presented in detail in this section.

6.5.1 Technological affordances

SNSs easy to use

The interview data analysis revealed that the students believed that social networks are easy to use. The participants agreed that they perceived SNSs as easy tools to use because they can easily and quickly get the information and references they want by using the search engines. Other participants indicated that SNSs enabled students to find experts and specialists in their study fields who would help them develop their personal learning. These views are clear in the following examples from the students' interviews.

I mean, the ease of reaching information, you only need to search about what you need in any network and you will get to a huge amount of knowledge. What also makes it easy is getting simple summarised interesting contents. (Maha, Science Y4)

It is very easy, you just type any expert's name in your field and you find lots of useful information. (Sadiya, Science Y5)

However, the participants qualified their argument saying that this perceived ease of use might be attributed to their frequent use of these sites. Thus,

students seemed to see SNSs as an easier way of getting information for personal learning than traditional ways that take more time, such as paper books and articles, as can be seen in the following example.

Social networks are the best, fastest and easiest way of finding information. I noticed that when I hold a book for example, it has a great amount of information, I search and sometimes feel lost, but in the social networks I search about a specific piece of information and find it directly. (Ghadeer, Science Y1)

Gain knowledge in less time and effort by SNSs

According to the interview data analysis, it is clear that students believed that knowledge can be obtained with less time and effort through SNSs, which led them to develop their learning personally by using these sites.

Social networks provide information easily and quickly. For example, I might need to know about something immediately, I access social networks and get the information at the same time. (Amina, Science Y2)

Other participants expressed the above view clearly by saying that SNSs are more effective than any other tool used to develop personal learning like books, because they enable students to search for the information they need at the same instant with the least effort and cost. The following extract is an example of this view.

The other difference is that social networks is saving. Instead of buying a book for that much money, I can find what I need in some sites. It saves my effort, time and money. (Aseel, Humanities Y5)

Exchange knowledge among colleagues or others by SNSs

The analysis of interview data revealed that students thought that one of the most important affordances of social networks is that they enable exchange of knowledge among colleagues or others. For example, the participants argued

that Instagram enables students to exchange videos and photos and tell their colleagues about important information that might help them to develop their personal learning process. Other participants illustrated that WhatsApp enables them to communicate with their lecturers in order to exchange information and links they need to support their personal learning. The following extract is an example of these views.

For example, when I find useful materials and videos I tell my friends, and if there is an account by an expert in Snapchat I send them the code so they can add it. Also, my friends do the same, we all exchange this useful information. (Mai, Science Y5)

The participants also showed that SNSs enable them to exchange information about the course, such as sending summaries of the lectures or important points of the lectures to absent students in order to help them to develop their learning personally. Thus, they thought that exchanging knowledge among students via SNSs would create a great benefit for both parties in developing personal learning process.

Generally, we need to give and take; because of that we share materials and information through networks. This exchange creates important benefits for all of us. (Amani, Humanities Y4)

Colleague groups in SNSs as a space for personal learning

The interview data analysis revealed that SNSs enable students to create and join colleague groups that help in developing their personal learning. The participants argued that colleague groups in SNSs allow students to share links, videos, photos and information that help to develop their personal learning. Moreover, others indicated that WhatsApp groups were the most commonly used SNS groups because they enable students to discuss important information presented in lectures, share information related to examinations

and assignments, and send other information that might not be related to lectures but which helps to develop personal learning. These views are clear in the following example from their interviews.

Groups encouraged us and motivated us for learning. We discuss many important things related to our course, they discuss what was given in the lectures, and share opinions, get more information about the topic. We share links and videos and sometimes we share new ideas. (Mai, Science Y5)

However, according to the interview data analysis, it was clear that SNS groups were not always seen as helpful. Some participants argued that SNS groups are not suitable for personal learning. This might be because students used these sites for social purposes and entertainment more than learning purposes. For instance, some participants stated that WhatsApp groups are used among students to inform them about lecture venues and whether their lecturer is not able to attend. Others indicated that WhatsApp groups are used for informing them about attendance and absence or course materials, such as asking about examinations or tasks and assignments, as can be seen in the following quote from the interviews.

The main aim our teacher created the group is to inform students if she is unable to attend or needs to change time or location, or postponing the tests for example. Only important and urgent information. (Eman, Humanities Y5)

Multimedia attract students to learn personally

The analysis of interview data revealed that pictures in SNSs attract students to learn personally. It was clear that, unlike books that present written texts, SNSs have several functions that attract students. For example, participants showed that SNSs, particularly Instagram and Facebook, provide students with a picture function that enables them to learn through presenting pictures with

useful and concise explanations. The participants added that picture functions in SNSs also enable students to obtain more information related to the study field and develop many skills that help to develop their personal learning, as can be seen in the following extract.

I need practical information. I need to see pictures! Books always present texts with too formal language; sometimes I do not understand. But in social networks, concepts might be presented in pictures like in Facebook with a simple explanation that makes learning easier. (Monirah, Humanities Y2)

In addition to pictures, the interview data analysis revealed that videos also attract students and help them to learn personally. From the participants' view, it was illustrated that videos are another SNSs function that enables students to develop their learning personally. They indicated that information obtained from audio files and videos from SNSs make the learning process easier than learning from books.

For example, accessing Instagram or Facebook, I can find videos and audio files that I do not find in books. I like videos; they present concepts in an easy way. This is the feature that I find in the social networks. (Amina, Science Y2)

Importantly, the participants explained that videos in SNSs enable students to understand the content easily, even if it is displayed in another language, through watching the video and following the practical part only. They added that SNSs enable students to follow specialists and watch their videos and documentary films, which leads to developing their personal learning in an effective way.

I prefer to watch videos to learn more. Even if they are not in Arabic, they are very helpful. I can watch the video content and understand it well. It is not always necessary to understand the verbal explanation. (Hasna, Humanities Y3)

I improved because I follow experts in social media and watch their videos related to my study topics even in other languages, where you can find more materials than Arabic. (Wesam, Science Y3)

SNSs provide summarized content

The interview data analysis reveals that SNSs could provide students with summarized content which they see as a technological affordance of these networks. The participants said that SNSs allow students to get a variety of information in a simple and concise way that supports them to seek further knowledge in a way that helps to develop their personal learning, as can be seen in the following extract from their interviews.

I find summarised information, and you know what you want exactly. (Maha, Science Y4)

Moreover, some participants believed that Twitter is the most important site that facilitates the learning process because it displays summaries of topics through tweets which enable them to seek further knowledge related to their study field and develop their personal learning at the same time.

For example, I go to [name of well-known psychologist] account I find lots of information about anxiety instead of searching in a book or in google. I go to his Twitter account and find short tweets that present all information I need in an organised and summarised way from a professor in the field. (Asee, Humanities Y5)

Diverging nature of SNSs

The interview data analysis reveals that the diverging nature of SNSs is regarded as a technological affordance that might benefit personal learning process. The participants expressed that SNSs not only enable students to get the information they need, but also allow them to get further information and follow up topics through the diverging nature of the social networks, which might

lead to developing their learning generally and personal learning particularly as can be seen in the following quote from the interview.

When I read in the social media about any topics, I find my reading searching diverging which sometimes takes me to another relevant topic. This variety of information I get makes me learn more and discuss topic with the others in a better way, get a wider background about my subject. This is the benefit, you reach not only the piece of information you are looking for, but also it takes you to more information around the topic. (Amani, Humanities Y4)

However, the participants argued that, although the diverging nature of SNSs allow students to receive rich knowledge that may support their personal learning, it was seen by some students as a challenge that needs to be considered carefully. They explained that the diverging nature of social networks might drive students away from the aim they want to achieve or provide them with undesirable results.

The challenge I face is the diverging nature of the social networks when I am tracking a topic. Sometimes you find yourself going away from the topic you are interested in. (Mariam, Humanities Y5)

Restricting access in SnapChat is a feature

The data analysis revealed that restricting access in Snapchat was seen by the participants as a feature. For example, the participants thought that Snapchat is one of the most interesting sites that offers interest and pleasure at the same time. They added that in Snapchat students are able to select people who they want to contact, and they believe those people would give interest and benefit through brief words, pictures or short videos in a very enjoyable way. They also indicated that selecting experts and leaders in their fields and following them in order to receive the knowledge they need would allow students to learn quickly and develop their personal learning effectively. The following quote is an

example of this view.

In Snapchat for example, I think it is the most interesting programme because you can choose who you want to follow; their privacy system is nice. Also it helps to learn in an interesting easy way. (Mai, Science Y5)

Using the 'Like' function to track topics

According to the interview data analysis, it was revealed that using the 'Like' function is seen by students as an important feature in social networks that enables them to track topics. The participants showed that most students who used Instagram used the 'like' function to receive notifications and further information about the materials and information they like, in a way that helps them to develop their learning. The following extracts show these views.

In Instagram, I try to be always informed about new comments and information by liking the videos or pictures I am interested in. (Marwa, Humanities Y5)

Sometimes for example the 'Like' a specific piece of information then I receive a notification about that and I go directly to the materials they liked and find it very useful and makes me go further and further in this topic which develops my knowledge. (Mariam, Humanities Y5)

Negative views about some SNSs' affordances

The interview data analysis revealed that, although most of SNSs were mentioned by students as useful learning platforms and environments, some students thought that not all SNSs are useful for learning. This might be due to their nature of using specific networking sites or their understanding of their affordances that was influenced by their actual use of a specific site. For example, some of them said that Snapchat is one of these sites on which it is difficult to find active users related to the study field. This might be because this site is seen as a social environment that allows students to display their diaries

and it is used as an entertainment environment that creates an enjoyable atmosphere. Yet others indicated that Instagram is not suitable for personal learning because it is limited to pictures and videos and students need text references and links related to their study field in order to develop their personal learning. Moreover, other participants argued that Twitter is another social site that negatively influences students' use for personal learning because of its limitation in the number of words in each post. WhatsApp is another social site that was seen as an unsuitable environment for personal learning, because its actual use among some students was for social communication with families and friends or for basic course information such as a lecture's time or location and asking about examinations. These views can be seen in the following example from the interviews.

But for Instagram no, I do not feel it could be used for learning, because it is limited to pictures. (Mona, Science Y5)

6.5.2 Educational affordances

Social networks enable students to learn in their preferred way

It is clear that students use SNSs because they enable them to learn in their preferred way. For example, participants indicated they prefer using social networks in learning because these sites enable them to choose the way and strategy they think most suitable for their personal learning. They may, for example, watch videos, read online articles or discuss with peers. While learning via SNSs is not compulsory, as the university only requires students to attend lectures, SNSs give students the opportunity to have control over what and how they learn. In other words, learning via SNSs enables students to learn in their preferred way with the people with whom they want to be engaged.

Others added that learning via SNSs enables students to have more awareness of their learning needs in a way that helps them feel more responsible for their learning, as they can choose the social site that they see as appropriate for them and which makes the personal learning process easier and more enjoyable. For example, Mariam thought that social networks provide students with interactive environments that allow them to hold open discussions with others. She explained her view clearly by saying that students can communicate with experts and peers at any time and ask them questions or discuss topics that may not be covered in the lecture due to the lack of time or because they are not related to the specific lecture content.

Social networks enable you to choose your way and the content you want to learn from. With this freedom, I think I am aware of my learning needs. (Amani, Humanities Y4)

It is more open for discussion than in the lectures where the time is limited and the lecturers are following their own strategy of teaching. I think social networks are more important for getting wider information than lectures. (Mariam, Humanities Y5)

SNSs affordances cover the lack of practical aspects in lectures

The interview data analysis reveals that the students use social networks to cover the lack of practical aspects in university lectures. It is clear that there is a need for SNSs among students to cover this lack of practical aspects in both science and humanities fields, but students in the science colleges seemed to need more in this matter from these sites. For example, some participants from the science colleges argued that lecturers present information in detail but in a theoretical manner and this might be due to the lack of equipment in the classroom, which hinders the learning process and understanding of the lecture content. Thus, they indicated that SNSs enable students to cover the lack of

practical aspects through watching videos that present the topic in full detail and more practically, in a way that helps to develop personal learning. Furthermore, others showed that in some topics it is difficult to depend only on the lectures but they require more work in order to develop their experience, particularly computer science students who need training in device maintenance, and SNSs allow them to meet this demand. They added that learning through SNSs is more effective than learning through traditional ways (lectures) which oblige students to be mere listeners. SNSs allow them to receive audio and visual knowledge that supports them to develop their personal learning.

We need hands-on training, assembly and maintenance for computers. It is difficult to rely only on the university, you need to develop your experience with other resources like social media, so you get more practical experience. Content from the university is not enough. (Maysa, Science Y5)

I use YouTube and Twitter to find films; I like watching more practical stuff. This thing helped me a lot and improved me in my subject. (Wesam, Science Y3)

In addition to the science participants' view regarding SNSs' coverage of the lack of practical aspects, some participants in humanities, particularly art students, thought that presenting the lecture theoretically is not enough and does not meet their learning needs, because some topics in arts need new ideas from videos or pictures that are provided in SNSs in order to facilitate the learning process. They added that some topics in art books are explained in classical Arabic, which makes it difficult for students to understand. Thus, they believed that SNSs are perceived as appropriate and effective tools that enable them to gain knowledge and information in a simple and understandable language. Furthermore, Asma indicated that, since students in the lecture are

more listeners than active, they saw SNSs as an important part of the learning process after the lecture that allows them to apply what they have learned previously. In other words, students used SNSs to communicate with experts and others to discuss ideas and information taken in the previous lecture in order to get more knowledge or correct misunderstood concepts.

For art education, it is not enough to attend lectures. I need to improve myself, practice and engage with the others in discussion and exchanging ideas. I need to go online in the social media, Instagram, YouTube. These sites help in my subject. (Hasna, Humanities Y5)

I need something practical, I need to see pictures. Books usually present too formal texts, sometimes I do not understand. I feel in the networks you find videos and pictures like in Facebook with some simple explanation, I understand better. (Monirah, Humanities Y5)

SNSs help shy students to communicate

According to the data analysis, SNSs could help shy students to communicate with others and discuss topics more freely and confidently. The participants illustrated that SNSs enable shy students to ask questions outside the lecture and discuss from their keyboards without face-to-face conversation. For example, Amina argued that SNSs helped to build confidence among shy students through giving them the opportunity to communicate with experts and peers in order confidently to discuss ideas or topics related to their study field.

Networks make some difficult things easier. I had an issue where I feel shy to ask lecturers during the lectures in front of other students, networks make it much easier. (Reham, Humanities Y2)

It is important for building confidence. Some students find it difficult to ask face-to-face questions, therefore, they go to social networks and feel more confident to discuss with others. (Amina, Science Y2)

Social networks help to overcome linguistic issues

The interview data analysis revealed that SNSs help students to overcome their weakness in foreign languages in some lectures, such as English language. For example, Maha argued that students seem to use SNSs after each lecture, particularly in lectures that were presented by non-native speakers, because they present the lectures in a different language with their original accent, which makes understanding the lecture and its content more difficult. Thus, she believed that SNSs allow them to find the topics presented in the lecture in Arabic language, which helps them to understand easily.

Look, now some of our lecturers are not Arab and we do not understand many things because of their language. So, I search in YouTube for Arabic materials in the same topic, this makes them easier to understand and you know what is going on. (Maha, Science Y4)

SNSs replace the private tutor

It was revealed from the interview data analysis that SNSs might replace the private tutors' role, according to some students' point of view. The participants said that, although the private teacher is very important in university education, particularly in some subjects where it is difficult to depend only on the lecture, SNSs can occupy this role. SNSs enable students to seek information they need instead of going to the private teacher, which costs a lot of money.

When I have difficult topics, I need to have a private teacher. But now with the social networks and YouTube we do not to seek help from private teachers; this year I did not take one. (Maha, Science Y4)

6.6 Skills and strategies of using social networks for personal learning

As the self-directed learning theory (SDL) was adopted as a theoretical

framework in the current study in order to explore the use of social networks to promote personal learning by Saudi Arabian university students, the findings about skills and strategies of using SNSs for personal learning is presented in the following sections of this chapter.

6.6.1 Skills of using SNSs for personal learning

In this section, findings about the students' skills of using social networks for personal learning are presented.

Lecturers trained students in SNS use for personal learning

According to the interview data analysis, only three students had received training and support on how to use SNSs for personal learning from their lecturers, as shown in the following extract.

I had a teacher who helped me, corrected my mistakes, and sometimes provided references and materials through WhatsApp. She also helped me in how to use Twitter for my own study and the way that I could benefit from it. (Abrar, Science Y3)

No support for personal learning skills

Although some students revealed that some lecturers encouraged them to use SNSs to develop their personal learning, this seems to be only encouragement without any actual support on how to develop the required skills to deal with SNSs for personal learning purposes and how to take the most of SNSs for educational purposes. Most of the participants said that there was no support on how to develop personal learning skills in general or specifically in SNSs. However, some participants stated that lecturers started to ask students to perform independent tasks and research which seem to be beneficial in developing personal learning skills. Students seem to expect more from their

lecturers in these tasks, as one indicated that their lecturers did not give them any information about how to do these tasks in a way that develops their learning and personal learning skills.

Lecturers encouraged us to use social networks and connect them with what we study and our curriculum. I think lots of students are very interested in learning with social networks but they do not know how to learn in these environments. (Noura, Science Y5)

Now, even when lecturers ask us to do independent tasks, they do not give enough information on how to do it or how to find resources. (Mariam, Humanities Y5)

Significantly, most of the students need academic and professional support rather than just encouragement from their lecturers in order to develop personal learning skills. For example, participants expected courses in personal learning skills that would teach them new personal learning skills or which develop these skills via SNSs. Equipment support is also needed from the university to allow students to receive help from their lecturers practically, in a way that facilitates the development of their personal learning skills.

I hope at least the university supports us, especially because our department is new and we need hardware to apply our projects, and carry out training courses in how to use social media and other resources to support our study, or workshops. We need help! (Noura, Science Y5)

Lack of SNS skills might lead to undesired outcomes

The interview data analysis found that the lack of skills related to the use of social networks for personal learning among students might lead to undesired outcomes or reaching the wrong conclusions. Two students described social networks as a 'double-edged sword' as they thought that when students do not have the important basic skills of using SNSs for personal learning, they might reach wrong or untrusted information as she described.

I can describe it as a "double-edged sword". For example, if the student does not have basic skills of how to find related information, she could reach the wrong or untrusted information and get to an undesired conclusion. (Mariam, Humanities Y5)

Practice facilitates the use of SNSs for learning

In order to overcome the lack of support students reported earlier, they seem to take the responsibility themselves in developing their own skills of personal learning through social networks by practising. Most of them said that they faced difficulties at the beginning but they continued practising until they became familiar enough with using SNSs to develop their personal learning. However, they argued that, although self-development might help students to develop their personal learning skills through SNSs, as shown earlier, they do need professional support from the university staff in order to guide their development and help them to gain the right skills and avoid any undesired outcomes, as can be seen in the following extracts.

At the beginning, I found some problems, because I had only the least skills, but after a while and more practice I felt that I have improved myself by myself and it became easier to learn personally. (Reham, Humanities Y2)

Using YouTube to learn use of SNSs

In addition to the self-development through practice reported in the previous section, students reported that they use YouTube to develop their skills in using SNSs for personal learning. They said that YouTube is an easy tool that helps them to find information they need regarding using SNSs, such as how to open an account on those sites and how to use them effectively, by watching videos and following the instructions step-by-step. However, one participant reported that she used SNSs themselves to learn how to use them for personal learning,

as presented in the following example from the participants' interviews.

The first thing is YouTube. It helped me to open accounts in other networks and how to use them and the tips for good search and communication. (Monira, Humanities Y5)

6.6.2 Strategies of using SNSs for personal learning

As presented earlier, the learning process was seen as an element of self-directed learning theory that aims to help students become more responsible for their own learning, so strategies for using SNSs for personal learning that emerged from the data analysis are presented. This section consists of three parts: planning for personal learning through SNSs, monitoring the process of personal learning through SNSs, and evaluating the outcomes of personal learning through SNSs.

6.6.2.1 Planning for personal learning through SNSs

Planning for personal learning is the first stage of the self-directed learning theory. Findings related to the students' planning for their personal learning is presented in this section of the chapter.

Advanced planning develops learning outcomes

The interview data analysis reveal that the students believed that advanced planning for personal learning develops learning outcomes. Most of the participants agreed that advanced planning for personal learning through SNSs make it more effective and lead to better learning outcomes. They said that planning in advance for their personal learning goals had improved their learning process and helped them to achieve their learning goals. One of the participants also said that her achievements and learning outcomes in the current year had improved compared to previous years and this might be due

to the advanced planning for personal learning via SNSs that helped her to do so.

I plan for what's in my mind, what I need to do, issues I need to investigate further. As I plan early, this saves time and benefits me more. If I have anything I need to study more about, I plan how to find information about it on Instagram and other networks. (Marwa, Humanities Y5)

Writing notes in lectures to plan for personal learning

According to the diaries' data analysis, it was agreed by the students that writing notes about the information needed after each lecture had helped them to develop their personal learning via social networks. For example, Marwa indicated that the starting point of planning for personal learning is taking notes during the lectures about points that need to be followed up or the points that were not clear. One of the important aims of these notes is to identify the areas that they need to develop more through personal learning on social networks. Amani added that, as each social network has different characteristics that meet different aims, writing notes about the points that need more research helps her to choose the appropriate SNS that meets this need. These views can be seen in the following extracts from the students' diaries.

In each lecture, some points and questions emerge that I need to study more. I write them as notes and these notes become the key words of my search in social media like Twitter. When I return home in the evening, I search about these information as happened with me today. (D6 - 1) Marwa

Writing note about topics I need to search more for, and then deciding what I need around these topics, deciding the networks I will use in my search. (D2 - 1) Amani

The outcomes of lectures as a basis of PL planning

From the diaries' data analysis, the basis of the students' plans for personal

learning are the outcomes of the lectures. They reported that, at the end of each lecture, some points emerge which they need to follow up in personal learning. The outcomes of the lectures seem to be the guide for students to set their personal learning goals and highlight the areas that they need to learn more about through social networks.

During the lectures, I can decide if I need more study about some points or not. Was the lecture comprehensive or needs some supporting materials? Usually lectures present the basic concepts only and I need to search and learn more about some points; according to that, I decide what I need to search for in the social networks. (D6 - 1) Marwa

Students focus on their weaknesses when planning for PL

As shown earlier, the students seem to follow points that were not clear during lectures. Therefore, focusing on their weaknesses seems to be a main driver that could determine their needs during their planning for their personal learning through social networks. Maysa indicated that students determine what they want to learn through SNSs by identifying points that were not clear during the lectures or that were explained in a manner inconsistent with their level of thought, as can be seen in the following extract from her written diaries.

Highlighting what I need to learn or topics that I feel weak in, either I did not understand it from the lecturer or was presented in a way that was not consistent with my thinking way. After that I start searching about information around these points. When I find the required content, I start reading and learning until I feel confident about the topic and then move to another. (D5 - 3) Maysa

Setting goals helps in assessing SNSs' content

Setting goals seemed to be a key stage in personal learning through social networks, according to the students. Mariam stated that most students seem to set goals that they think will encourage them to reach their desired outcomes,

and this helps them to assess the value of topics and information they find on SNSs, as can be seen in the following quote from her interview.

Well, during my personal learning process, I always have a clear goal I am trying to achieve. This goal helps me to assess the value of information I find. (Mariam, Humanities Y5)

Learning goals determine networks choices

Another important element during students' planning for personal learning was the resource or specific social network that students need to search in and engage with in order to achieve a specific learning goal. The type of social networks the students choose for specific learning purpose seems to be influenced by what they are going to learn. According to the diary data analysis, they indicated that each social network has its feature that differs from the others. For example, the most important characteristic in Instagram is to display videos or photos with written words, which makes the personal learning process easier and enjoyable, while in Twitter it is to share links, information and resources that help to develop their learning. The following extract from one of the participants' diaries is an example of this view.

*For each network, characteristics and features that help in different purposes for the information I am seeking. (D2 - 2)
Amani*

However, some of them indicated that they do not choose specific social networks; rather, they access more than one in order to validate the information they find. Mai reported that she uses more than one network to search for information she needs in order to make sure of its validity.

I do not rely totally on a specific site, but I like to search most social networks I have accounts in and ask more so I can have wide knowledge. Each site presents contents in a different way. (D3 - 1) Mai

Time management increases learning progress

An important element that was raised by the participants regarding their planning for their personal learning through social networks is learning time management. According to the diary data analysis, most participants agreed that managing personal learning time increases the quality of the learning process and positively influences their progress. Amani said that dividing her studying hours between the tasks, studying and priorities would lead to developing her level of learning and her learning outcomes. The following extracts of the diaries are examples of these views.

Arranging time for each task and deciding if any task would take longer for reading and searching. This organisation and management helped me to improve and learn better. (D5 - 3)
Maysa

I noticed that with good time management better achievement in the learning level. (D2 - 3) Amani

Students do not follow clear plans when learning through SNSs

Although most of the students agreed that following fixed plans when learning personally through social networks is necessary in order to reach better outcomes and improve their progress, some of them indicated that they did not follow clear or fixed plans during personal learning. For example, Mariam said that she searched for information that came to her mind at the same moment and expanded her reading about it through social networks without clear planning. This might be because of the flexible open access nature of SNSs according to her point of view. She added that fixed plans would restrict the learning process and lead to losing the benefits of the social networks' features.

It is difficult to limit myself in a fixed plan. Because we actually chose social networks as a learning tool due to its flexible nature,

I think plans create restrictions. If this happens we will lose the main feature of social networks. (Mariam, Humanities Y5)

6.6.2.2 Monitoring the process of personal learning through SNSs

Monitoring is the second phase in the learning process of the self-directed learning theory that was adopted in this study in order to explore the issue under investigation. In this section, findings from the diaries and interviews data analysis about monitoring is presented.

Students are able to control personal learning

From the analysis of the diaries data, it was revealed that most of the students believed that they are able to control and monitor their personal learning using social networks. For example, the students argued that they have the ability to control their personal learning using social networks, through deciding and setting goals about what they need in order to increase the quality of their learning and organizing or managing their time so as to help them achieve their learning goals. Maysa reported that SNSs facilitated controlling and monitoring her personal learning and made it more effective, in a way that helped her to develop her learning outcomes.

Hopefully, I have the ability to control my own learning and control what I do and organise my learning very well. (D3 - 2) Mai

Organizing my learning through networks is controlled very well and managing this is easy. (D5 - 1) Maysa

Students observe their progress when learning through SNSs

From the interviews, the students indicated that they observe their progress through a number of strategies. For example, Maha stated that she observes her progress through monitoring the results of examinations and comparing her results from beginning of the course with those at the end of the course, which

helps her to develop her learning more personally. Sadiya observed her progress through assessing the knowledge that she obtained wrongly the first time and later corrected through searching for more information and discussion with others using social networks. Also, Amani observed her progress through identifying her weaknesses and then working on them to strengthen them, in a way that leads to developing her personal learning. Moreover, Reham indicated that using WhatsApp to discuss topics related to the study field with her colleagues helps her to observe her personal learning progress through measuring the extent of her knowledge and information before and after the discussion. She added that setting a table for prioritises, tasks and time, and ticking tasks that have been completed, help her to observe her personal learning progress. The following extracts from the interviews are only examples of the students' views.

For example, through quizzes. We usually have quizzes, so I can see the ones at the beginning of the term and at the end and see the difference between them and the improvement. (Maha, Science Y4)

Of course, when I make timetables and check lists about my learning tasks, I control my time and see what I've finished. (Reham, Humanities Y2)

Moreover, as part of the students' monitoring, they notice their improvement as a result of their personal learning process through social networks. According to the diaries data analysis, students argue that their improvement is noticeable through their performance each time they learn, such as their performance in research methods and their learning how to manage time. They feel pleased with themselves when using social networks, because their improvement is noticeable each week, especially since they depend on themselves in the learning process.

My performance improves each time I learn personally. My performance in research, learning strategy, managing time and so on. (D5 - 3) Maysa

Through following my progress this week, I can clearly see my improvement, Especially as I am doing that independently. I am happy about my progress. (D2 - 2) Amani

Students review what they learn as a strategy of monitoring progress

The students stated in their diaries that, as part of their learning process through social networks, they regularly review what they learn. Ohood explained that, after completing her study tasks, she reviews what she has done through her mobile notes to gauge how much information she has received and assess what additional information she needs. In the other week in her diary she showed that she monitors her performance by reviewing the previous chapters studied and, at the end of each week, tries to observe her progress by reviewing what she has done.

Also, I check my progress through reviewing the previous chapters one by one and at the end of the week I see how I learned and improved. (D1 - 1) Ohood

Students do not have clear strategies to use SNSs for personal learning

Although most of the students indicated that they plan and monitor their personal learning progress following clear strategies, two of them stated that they do not follow clear strategies when they learn personally through social networks as indicated in the interviews. Mona argued that she does not follow a particular method during the learning process; this might be because she does not know how to manage her time or how to benefit from these networks to develop her personal learning. In addition, Mariam showed that she does not have a clear strategy for using social networks to develop personal learning. However, as reported earlier, she justified not following strategies

by the flexible nature of social networks that requires learning without following fixed strategies. These views are clear in the following extract from their interviews.

I do not feel very confident in managing my study time and how to get benefits from these sites personally. I do not have a strategy to do that. (Mona, Science Y5)

The students' need for others to monitor their performance

Although most students believed that they were able to monitor their own performance, four of the participants expressed the need for others to monitor their performance and learning. For instance, Mariam reported that she does not have sufficient time to monitor her performance because most of her time is spent between traveling to university, sleep and study tasks only. So, she needs others, such as experts or lecturers, to monitor her performance in order to help her to develop learning outcomes. Another reason for not monitoring her own performance was given by Mody, who indicated that her lack of confidence in her ability to control her personal learning leads her to seek help from others, especially more experienced people, to monitor her performance in order to achieve her learning goals. In addition, Wreef, who is in her first year, thought that it is too early to monitor her performance and she saw her lecturer as responsible for monitoring her performance.

Someone who can observe my level of learning and review with me what I learn and discuss it with me. (Mody, Science Y2)

6.6.2.3 Evaluating the outcomes of personal learning

With regard to how the students evaluate and assess their learning outcomes as part of their personal learning process, the participants provided various opinions as presented in this section.

Instant self-assessment when using SNSs for personal learning

First of all, and according to the interview data analysis, most of the participants who studied personally through social networks thought that they could assess their progress and learning outcomes when learning personally. This self-assessment was expressed clearly by the students. For example, Adhra argued that she did not need others to assess her performance; rather, she was able to assess her learning outcomes by herself, particularly when using social networks for personal learning. Mariam added that using SNSs for personal learning not only helped her to see the result of her learning, but it also supported her to assess her performance instantly.

Yes, I have the ability to assess my own learning with social networks. I mean, I can see my knowledge before and after I engage with the others in conversations and discussion about my subject. (Adhra, Humanities Y1)

During my personal learning through social networks, I can assess my performance instantly, you can see the result of your learning, you do not need others to assess your performance (Mariam, Humanities Y5)

In addition to the interviews, the diaries data analysis supported this view of self-assessment in the personal learning outcomes. The students in their diaries seemed to be confident about their ability to assess their own progress and learning and personal learning outcomes. Most students indicated that they are able to assess their personal learning outcomes by themselves, through setting a list of topics and points that are needed and noting when they are achieved. They added that setting learning goals, such as better understanding of topics, discussing points with others, presenting different views and searching for additional references, helped them to assess their own progress by themselves, as can be seen in the following extracts from their diaries.

As I expressed earlier, I have pre-determined goals of learning more about points I had previously written during lectures. After I get the information I need in each point, I know that I have achieved my learning goals. (D6 - 2) Marwa

I feel happy about myself because I finished my learning tasks and the topics I need to study more on time and achieved what I wanted. (D3 - 2) Mai

Students are satisfied about their learning strategies

As a result of the students' assessment of their own learning through social networks, they expressed their satisfaction with their strategies and the platforms on which they chose to perform their personal learning. Most of them said that they were satisfied with their personal learning outcomes using specific social networks, because their choices provided them with the opportunity to find the contents they needed for developing personal learning according to their diaries, as shown in the following extracts.

I reviewed my progress during my personal learning and there was improvement. I feel happy about what I did and the platforms I chose. (D5 - 2) Maysa

I think next week I will follow the same strategy. Because I achieve what I want, learn, improve in a good way. I might consider more networks in addition to Twitter and Snapchat. (D6 - 1) Marwa

Students' examination results as an indicator

As another strategy for assessing their learning outcomes, the students reported that they look at their examination results as an indication of how they have performed in their personal learning process. This was clear in the students' diaries data where they stated that they received high scores in the subjects they had prepared earlier and for which they had organised their time using social networks to review their contents independently. Ohood said that she evaluated her personal learning outcomes via answering the questions in

the examination which were not covered in the contents of the lectures, rather they were gained personally through social networks.

It was great I achieved my goals. As I could answer questions not in the lecture contents or the course materials and I got full marks. (D1 -2) Ohood

Course results assess personal learning process

The interview data analysis also supported this view, where students reported that they were able to assess their personal learning outcomes using social networks through the grades, assignments and academic averages they achieved at the end of each year. They also added that they try to see their grade points each term and calculate them so as to raise their academic level if they need to. However, Ghadeer argued that she uses self-applied personal tests as indicators that assess the extent of her abilities and her personal learning outcomes that help to develop her learning progress. These views are presented in the following extracts.

I see my marks, my grades average, and count my points to see my improvement, and I try to improve my level if needed. (Sadiya, Science Y5)

Also from your results and marks in the course and assignments, you can judge how you did during personal learning. (Mariam, Humanities Y5)

Peer dialogue is important to assess personal learning outcomes

In addition to the self-assessment and the examination results, another student stated in her interview that discussion with colleagues about their learning is an important indicator that she uses to assess her personal learning progress. She said that obtaining new information from social networks and discussing it with her colleagues, experts and others acts as a useful assessment that may help

to improve her personal learning outcomes, as can be seen in the following extract from her interview.

What I learn usually appears in my discussion with my colleagues and the others. For example, if you learn something and later you discuss it with the others, this is I think a good assessment. (Mariam, Humanities Y5)

Lecturers' satisfaction with achievement assesses learning outcomes

The participants also showed that they took their lecturers' satisfaction with their progress as an indicator of their learning outcomes and their personal learning progress. For example, Mariam believed that her lecturer's feeling of satisfaction with her performance is a useful way of assessing her personal learning outcomes from the use of social networks, as can be seen in the following quotes from her interview.

Also, the satisfaction of lecturers about my performance in the course in general could give me an indication about how I did during my personal learning through social networks. (Mariam, Humanities Y5)

Lecturers' assessment is needed to confirm personal learning outcomes

Four of the participants mentioned the importance of the lecturers' assessment of their progress to ensure that they are going in the right direction in their personal learning. For example, Mody argued that it is early for her stage (in year 2) to assess her learning outcomes; rather, there is a need for the lecturer's assessment to assess her personal learning outcomes. Also, Mariam reported that her lecturer's assessment of her personal learning achievement is needed because she seems to lack the confidence to assess it herself. These views can be seen in the following extracts from the participants' interviews.

I think it is too early for me to be able to evaluate my learning. It should be by qualified people who know if I get to the expected level or not. (Mody, Science Y2)

Sometimes I need the lecturer because I do not want to feel over-confident. I think, finally, you need to be assessed by your teacher so you do not wrongly assume you have achieved the course goal. (Mariam, Humanities Y5)

Difficulty of self-assessment

Although most participants agreed that they have some sort of strategies to assess their personal learning outcomes, some science students indicated that they found it difficult to judge their learning outcomes themselves. For example, Mona explained that she has to travel to the university because she lives in a village so this does not give her enough time to assess her performance. Mai argued that her psychological disorders negatively affect her assessment of her own personal learning progress. For instance, when she feels optimistic she raises her self-evaluation, but when she feels frustrated, as she described it, this decreases her confidence in the self- assessment of her learning.

I cannot evaluate my learning results because I have some disorders. When I am ok there is no problem, but when I feel frustrated sometimes I feel unsteady and unable to check how I did in my study. (Mai, Science Y5)

Moreover, Sadiya indicated that in some subjects, especially in science, it is more difficult to depend only on the students themselves to obtain knowledge or judge learning outcomes; rather, they need others to support them, and therefore they find it hard to assess their performance by themselves. Furthermore, Mody believed that it was hard to assess her performance because she does research rather than doing examinations which might help her to assess her personal learning outcomes, as can be seen in the following extract.

Honestly, I do not know, maybe my subject does not allow me to be fully independent in my learning. I cannot assess my level of learning without help from teachers. (Sadiya, Science Y2)

Our work is mostly research. I cannot judge my work without professional review. (Mody, Science Y2)

6.7 Challenges facing students when using SNSs for personal learning

This section presents findings related to the challenges facing students when they use social networks for personal learning. It consists of two parts: the first part is about the issue of the trustworthiness of SNSs content, while the second part presents other challenges that might face students during their learning.

6.7.1 Trustworthiness of SNSs

The issue of trustworthiness of the social networks' contents and the materials that are obtained from them seemed to be an important concern among students. This issue is presented in detail in this section.

SNSs contents are not always trusted

According to the interview data analysis, students do not always trust materials on social networks. For example, students believed that, although there is a variety of knowledge found on SNSs that might help students to achieve their learning goals, they cannot fully rely on it because much of the information there is not to be trusted. This is because this information came from people's opinions and anyone can contribute to the discussion. On the other hand, other students argued that they are able to obtain reliable knowledge from SNSs but they need to take into account the people whom they follow and with whom they engage in discussions. From these trusted people, such as specialist or experts in their fields, students can receive trustworthy information that helps them to

achieve their goals. Others added that it might be difficult to get trustworthy knowledge from SNSs, but that there were official sites that support students to gain reliable and correct information, which helps them to reach their learning goals and meet their learning needs. The following quotes are examples of their views.

I think social networks could help, but don't always rely on them because some resources might provide wrong information or not be accurate. Sometimes I see information totally wrong. (Mai, Science Y5)

I have to consider that there are trustable and un-trustable resources in the social networks. Official medical accounts for example that are well-known, are trustable resources that I can rely on to get materials and know about latest research. (Ghadeer, Science Y1)

I agree that information is always available, but you need trusted contents from trusted people. Sometimes you do not find this trusted information. You need to remember that this information is people's opinions and everyone can contribute to the discussion. (Mariam, Humanities Y5)

Difficulty of judging the content of SNSs

The analysis of the interview data reveals that students found it difficult to judge the contents of social networks. They gave some justification for that; for instance, Noura said that they saw themselves as students who do not have enough experience to judge the contents they receive from these sites. In addition, Mona stated that students do not have sufficient knowledge to enable them to decide if the contents that are found in SNSs can offer benefits for their learning, as can be seen in the following quotes from interviews.

My fears are because I am still a student. What we see in the social media always contain false information. As a student, I cannot always evaluate the contents. (Noura, Science Y5)

It is difficult to judge the information I see in the social networks, but maybe I try to find known accounts. (Mona, Science Y5)

Open access feature in SNSs affects content trustworthiness

The interview data analysis reveals that open access in social networks affect their contents' trustworthiness. For example, Mariam argued that, in social networks, everyone can write or add comments which might not be accurate and affect the contents' trustworthiness, as can be seen in the following quote from her interview.

Unlike social networks' contents which are open for everyone to contribute to. (Mariam, Humanities Y5)

Knowledge in books is more trusted

The analysis of interview data reveals that students agreed that knowledge in books is more trusted than other open resources like social networks. Students explained that, although social networks save time in getting knowledge, books are more accurate and provide trustworthy contents, because they are documented by the names of the writers and the name of the publishers, unlike information found in SNSs, where it is often difficult to know the authors and their sources. They also stated that the quality of knowledge is better in books because their information is kept from distortion and the authors of books do not only write their own view but they also present other perspectives in a way that allows others to judge them. They added that knowledge in books is more trusted than in social networks because books are specific and clear, which allows the readers to look for what they need, whatever the length of the book. These views are presented in the following example extracts from the interviews.

I think books provide higher quality contents, because books are well referenced and written by experts usually. You can see the

author's information and the publishers. In social networks, you do not know the source of information. (Eman, Humanities Y5)

I think books are more trustworthy than social networks. Students could get wrong information but books usually more accurate and kept from distortion. (Bedoo, Science Y3)

Cross-referencing needed to confirm knowledge

The interview data analysis reveals that the students need cross-referencing to confirm knowledge. They stated that they did not only depend on social network contents, rather, they also sought further knowledge from other resources like books, articles and other references in order to ensure that the information taken from social networks is trusted. Other participants reported that they usually ask lecturers about the information they find in SNSs or go back to the lecture and review its contents in order to make comparisons between them in terms of reliability and quality. However, others thought that SNSs themselves might offer help for students to confirm questionable information found there through asking experts about this information or seeing other official accounts from different sites that may give more trusted information. These views are clear in the following extracts from the interviews.

Beside the social networks' content; I need to have other resources which should be books and references which provide trustworthy information. Social networks can facilitate many aspects when learning but they need to be supported by other resources. (Mariam, Humanities Y5)

When I read a piece of information, I do not know if it is right or wrong, I check more than one account from multiple sites. If I still need to make sure, I go back to the lecture's contents and ask my teacher. (Maha, Science Y4)

6.7.2 Other challenges face students when using SNSs for personal learning

Lecturers' traditional views about learning do not support personal learning

It was found from the interview data analysis that the lecturers' traditional views about learning do not support the students' personal learning and can be seen as a challenge for students when they want to learn personally. For example, Bedoor and Wesam argued that some lecturers' traditional teaching views may negatively affect the students' personal learning where they believe that students cannot learn independently and see the university as the only learning context. They added that lecturers do not provide them with any materials, strategies or references to support them to be more independent learners in a way that would encourage them to improve their learning outcomes and develop their personal learning, as can be seen in the following quotes from the interviews.

In general, they do not give us any materials or guide us to adopt independent learning strategies. What I see is that they think they should present lectures and that's it, they do not have to give us anything else. (Bedoor, Science Y3)

They always make us depend on modules and lectures, never support us to develop our learning personally; they do not think it is important. (Wesam, Science Y3)

Technical challenges

Technical challenges sometimes face students when using social networks for personal learning. Most participants from both fields, science and humanities, stated that internet connection problems are technical issues that sometimes limit their use of SNSs for personal learning. They noticed that the internet

connection sometimes drives SNSs to respond very slowly, which leads them to choose the traditional methods of learning such as reading books in order to save their time or choose another tool that enables them to get the information they need at any time and place. However, Maysa said that there is an issue greater than the connection problem, namely the problem of fake pages and advertising on some pages in SNSs, which may negatively affect students' personal learning. She explained that these fake pages might drive students, particularly those who do not have enough experience of using SNSs, to access untrusted or unauthorized sites in a way that might lead them to get to undesired outcomes, as can be seen in the following extracts from the interviews.

Books are good where I can take them with me anywhere, not affected by the internet connection like what happened in the case of social networks. Several times I was stuck because of the internet connection because the area where I live has always internet problems. (Wesam, Science Y3)

Sometimes I have problems with our internet at home, like a slow connection, sometimes I struggle with the fake pages and advertisements that sometimes take me to the wrong site. This disturbs my work. (Maysa, Science Y5)

Lack of privacy in some SNSs as a challenge

One of the participants argued that there was no privacy on some social networks, for example in Twitter, which may negatively affect their use for personal learning. SNSs are open to all users, which allows other people to access other people's accounts and see their profiles. However, this view might be due to the lack of skills that allows this participant to manage the privacy settings of her accounts. Her view can be seen in the following quote from her interview.

There must be privacy in the learning programmes. In Twitter for example, there is no privacy. (Malak, Humanities Y3)

Lack of time as a challenge

In addition to the challenges reported earlier, the interview data analysis reveals that two of the students had challenges regarding time that did not allow them to use social networks for personal learning. Both of them reported a lack of time due to their preoccupation with the large number of examinations. Also, Malak added that her study field requires her to do some practical work, which hinders using SNSs for personal learning. However, as only a few participants reported this challenge, they might have issues with their study time management. Their views can be seen in the following extracts.

Sometime shortage of time because of the rush of exams, no time for searching further. I hardly ever achieve what they give us at the university. I try to catch up in my free time. (Maysa, Humanities Y3)

I have problems regarding time. Always I have exams and pressure from tasks; there is no chance to learn further outside. (Malak, Humanities Y3)

Life commitments as a challenge

Life commitments were found to present other challenges that limit using SNSs for personal learning among some students. The analysis of interview data revealed that Noura faced difficulty using SNSs for personal learning, particularly after marriage, because there were other responsibilities she needed to deal with as can be seen in the following quote from her interview.

I have some time issues; before it was difficult, now it is even more difficult after I got married. However, I try to study more if I am at the university. (Noura, Science Y5)

Health issues

Health issues are another challenge that limits some students' use of social networks for personal learning. Noura argued that using SNSs for a long time

negatively affects her health because she has poor vision, which leads her to use SNSs only when she needs to seek very important information, as can be seen in the following extract from her interview.

I have some sort of vision weakness. Because of that I cannot spend a long time on the social networks, only if I have important things that I need to search for, especially when I need to read. But for Snapchat it is not a problem. (Noura, Science Y5)

6.8 Cultural aspects related to the use of social networks for personal learning

As culture is a significant element that influences all aspects of life, including education. This section presents findings related to cultural and contextual aspects and how they could influence the students' personal learning through social networks.

Foreign lecturers provide more support for personal learning

When students were asked about the lecturers' support for their personal learning, four of them mentioned that foreign lecturers gave more support in developing their personal learning. They noticed that foreign lecturers and particularly western lecturers are more interactive with their students and support them to meet their needs by sharing important information via social networks and sending materials that help them to develop their personal learning. Culturally, this might be due to the nature of the education environment in western countries that consider online communication including SNSs as a part of the educational context that helps to support personal learning among students. Moreover, according to their view, foreign lecturers deal with their students more effectively in a way that helps them to be more independent. This means that they are interested in delivering the concepts in

an easy way that facilitates students' learning process by providing them with all the information and materials to help them develop their personal learning, unlike Saudi lecturers who concentrate more on the learning process during lectures, examinations and the students' attendance issues. They added that male foreign lecturers also tend to be more active than others through providing students with all information they need and trying to help them in developing their personal learning. The following extracts are examples of these views.

I want to add something regarding lecturers. I noticed that foreign lecturers like British are more interactive with us through WhatsApp and they send us materials, links. I think because they came from an advanced educational environment where they take advantages of technology to support their students. (Aseel, Humanities Y5)

Honestly, me and my colleagues notice a difference in the way foreign lecturers deal with us, different from Arab lecturers. Arabs are concern with lectures, exams and attendance, but foreign lecturers are concerned with our learning, our motivation to learn and support us to learn. (Noura, Science Y5)

Contacting males as a cultural challenge

Some of the participants raised concerns about Saudi females' communication with males via SNSs as a cultural challenge in the conservative community of Saudi Arabia, even for educational purposes and the personal learning process. For example, Mai indicated that contacting males via SNSs is a cultural issue that hinders the personal learning process among female students, as can be seen in the following quote from her interview.

My communication with male experts and professionals in the social media. I feel there is limitations or borders. I feel hesitating, shy to contact them. (Mai, Science Y5)

The students argued that contacting foreign male lecturers is not seen as difficult as contacting Saudi male lecturers. This might be due to the nature of

culture in the conservative Saudi Arabian community, which does not accept communication between unrelated males and females. It is also clear that, although most students are active in SNSs by adding comments and sharing files or links in the study field, they tend to avoid contacting males. Consequently, contacting males via SNSs is seen as cultural challenge that faces some female students and is negatively affected by the norms and values of their culture. These views can be seen in the flowing extracts.

Male foreign lecturers are good but, for Saudi Lecturers I don't know, I feel there are some borders. (Sadiya, Science Y5)

I try to comment on the posts in the social networks, but sometimes I have some problems. Sometimes male users do not take it seriously for other purposes. This is the only problem. I like to contribute to the discussion and exchange opinions but the problem with male users. I am concerned about being understood wrongly, they might think I want something else. (Noura, Science Y5)

Moreover, in Saudi culture, society's view of females toward communication with males via SNSs differs from their view about males. This view was raised by Sara, who stated that making contacts via SNSs is acceptable for males, unlike for females, who face restrictions when using SNSs for learning. Thus, males can communicate with others, whether female or male, via SNSs to discuss information more freely than females can, according to this student's point of view.

Some people use it wrongly. Our culture restricts communication between males and females, even online. The problem is only for females, but for males it is not a problem. There should be no relation between males and females, even for education purposes. (Sara, Science Y4)

SNSs solve some cultural issues regarding communication between males and females

Although some students reported that they find it challenging to contact males in SNSs due to cultural restrictions, other students believed that SNSs could help them overcome cultural issues regarding communication between males and females. They emphasised that females find difficulty in face-to-face communication with males due to cultural aspects imposed by Saudi society itself. Therefore, they found that communication via SNSs could solve this issue and help female students to develop their personal learning through following experts and communicating with them regarding their educational needs, as can be seen in the following extract.

Another thing I would like to add is that, due to our culture, it is difficult to communicate with males in person. Therefore, social networks have solved this issue. I can communicate with male experts in my subject and other male students and we can discuss educational matters more freely. (Reham, Humanities Y2)

Another cultural issue that could be solved by SNSs regarding females is the restrictions on their movements. The findings show that SNSs help to overcome the issue of restrictions on females by allowing them to meet their educational needs without, for example, the need to go to the library out of the university course hours. It could be a cultural or just an administrative issue that females' facilities at the university are only open in the mornings. Consequently, instead of going to the university library or other places to seek materials, SNSs could save effort and time for female students and at the same time help them to reach their goals and receive electronic materials they want easily.

Because we are in Saudi Arabia, and the freedom of travel is restricted for females, I cannot go out at any time I want. For example, it is difficult to go in the evening to the library to get a book. Social networks enable users to get materials and seek help without going out. (Mody, Science Y2)

Furthermore, females' driving in Saudi society is another cultural issue that might be solved by SNSs in relation to personal learning. Monirah gave the opinion that SNSs offer a convenient learning environment to Saudi females who are not allowed to drive due to cultural aspects of Saudi society, where they can meet their educational requirements and help them to gain knowledge and information from their home without the need for driving. However, it is worth mentioning that, during the period of this study, driving by women was approved by the Saudi government.

Fortunately, we can learn from home without the need to go out, as we cannot drive to go to the library. Social networks help us to get what we need and guide us to materials we need from home. (Monira, Humanities Y5)

English language facilitates access to more materials

According to the interview data analysis, some of the students emphasised that English language facilitates access to more materials through SNSs. Hasna stated that, although many Arabic references could be found in SNSs that provide students with knowledge and benefits, a larger amount of materials are easily available in English. Amina reported that some study fields are taught in English, which makes it difficult to gain knowledge in Arabic via SNSs that support their learning. However, she stated that her English language supports her access to more materials in SNSs so she can gain materials, references and in-depth information to develop her personal learning.

Although there are a lot of Arabic references and I search in Arabic, searching in English gives me more useful information, very useful. (Hasna, Humanities Y5)

My subject is a little bit difficult and requires good English. I noticed that there is endless amount of useful references. My language helped me to get more resources that benefited my study. (Amina, Science Y2)

Moreover, Abrar argued that some foreign lecturers present their lectures in English but in their own accents that are sometimes not clear, which negatively affect the students' understanding of the lecture content. Consequently, she found that SNSs are a good solution because they contain a lot of references in English that help her seek further knowledge, as can be seen in the following extract from her interview.

Most importantly, regarding language, when the doctor is Indian and presents the lecture in English, some words and concepts are not clear. In this case I find English materials and accounts and learn more from them. (Abrar, Science Y3)

Difficulty regarding language

Although some students do not find difficulty regarding language when using SNSs for learning, one student raised the point that language is an obstacle that limits her use of SNSs for learning. Eman explained that searching for information in Arabic via SNSs is easy compared to searching in other languages such as English that require time for translation. However, it seems that she did not have an adequate level of English for using SNSs effectively for learning and this might be due to some study fields, particularly humanities in Saudi universities, that are only taught in Arabic, which makes using SNSs in English more difficult.

It is easy when you search in Arabic, but it becomes difficult if you are searching in English resources. It is difficult and needs time for translation. (Eman, Humanities Y5)

6.9 Summary of the chapter

This chapter has presented the qualitative findings that emerged from the interview and diary data analysis. The seven main themes that emerged from the data using an open thematic analysis strategy following Braun and Clarke

(2006) model were presented in this chapter, including evidence from the data as extracts supporting the presentation of the findings. The main themes included the students' perceptions of personal learning, the sense of agency among students, responsibilities and expectations, students' opinions and purposes of using social networks, affordances of social networks in personal learning, skills and strategies of using social networks for personal learning, challenges face students when using SNSs for personal learning, and cultural aspects related to the use of social networks for personal learning. In the following chapter, I discuss and interpret the findings of this study presented in Chapter Five and Chapter Six.

7 Discussion

7.1 Introduction

This study was carried out to explore the use of social networks by Saudi Arabian university students to promote personal learning. It sought to investigate the following research questions:

- 1- What are Hail university female students' perceptions of personal learning?
- 2- What are Hail university female students' perceptions of the use of social network sites (SNSs) for personal learning?
- 3- What are the relationships between Self Directed Learning (SDL) elements and the students' use of SNSs for personal learning?
 - How do the students' perceptions influence their SDL activities?
 - What is the relationship between the students' learning process and their use of SNSs for personal learning?
 - How do contextual and cultural factors influence the students' personal learning?

As presented in the findings chapters previously, many interesting points emerged from both the qualitative and quantitative data analyses. These points provide insights towards answering the research questions, contributing to knowledge and covering the gap discussed earlier in the literature review chapter. As this study adopted Self-Directed Learning theory (SDL) as a theoretical framework which informed its focus, design and process, each theme emerging from the findings fell into one of the three elements of the theory: personal factors, the learning process, and contextual factors. These elements have widened the study focus to include all possible influential aspects related to the use of SNSs for personal learning by university students,

as discussed earlier in the literature review chapter. However, it is worth mentioning that the emergence of the interesting themes from the findings was not limited by the research questions, as the data spoke about itself freely through open thematic analysis. Rather, the themes came as a result of the study focus, and the organisation under these factors was carried out as part of creating the discussion chapter structure.

It was found that the students' perceptions about personal learning can be an important element that significantly influences their adoption of this type of learning. In addition to these perceptions about personal learning, the sense of agency students hold and the control they assume they have over their own learning are important aspects that form their views and influence their performance. As explained earlier, in the qualitative findings chapter, what the students think about their own responsibilities in relation to their lecturers' responsibilities to their learning seems to play a major role in their personal learning and the relationships between themselves and their lecturers in the learning context.

The findings also show how the students deal with social networks and the purposes they use it for, which were found to be important elements in their use of these networks for educational purposes. Their recognition of the technical and educational affordances of these social networks was also found to be another important element that forms their relationships with this technology when they use it for personal learning. Their recognition and understanding of the affordances of social networks also seem to be significantly linked to their sense of agency and their perceptions of their own and their lecturers' responsibilities during their learning.

In addition, the skills of using social networks and the strategy they follow in order to perform personal learning presented in the previous chapter have raised important points that influence the use of social networks for personal learning in the light of Self-Directed Learning theory. The findings also presented the challenges that the students face when they use social networks for personal learning, such as the issue of the trustworthiness of the contents of social networks, and how these challenges might be overcome. Finally, the findings also showed the importance of many cultural aspects in forming and influencing the students' perceptions and performance of personal learning through social networks. These cultural aspects are extremely important in forming the students' relationships with social networks and with the others in these networks, as this study focused on Saudi Arabian female students who are part of a unique conservative community.

In this chapter, I interpret the most salient findings presented in the previous chapters and discuss the relationships between them in order to reach a whole picture and understanding of the topic in the light of the wider literature and toward answering the research questions. The interpretation will be informed theoretically by Self-Directed Learning theory and its elements, in addition to affordance theory and the concepts of identity and agency. This will allow me to discover how the students' perceptions were formed and how their learning process was influenced by their perceptions of the division of responsibilities in the learning context. Also, how their recognition of the affordances of social networks, in conjunction with the sense of agency they hold, could influence their relationships with other actors in the learning context and their personal learning strategies. Therefore, I divided the following part of this chapter into

three sections based on the elements of Self-Directed Learning theory: personal factors, learning processes and contextual and cultural factors. Under each of these factors, several points are discussed in each section, as shown in Figure 7-1 below.

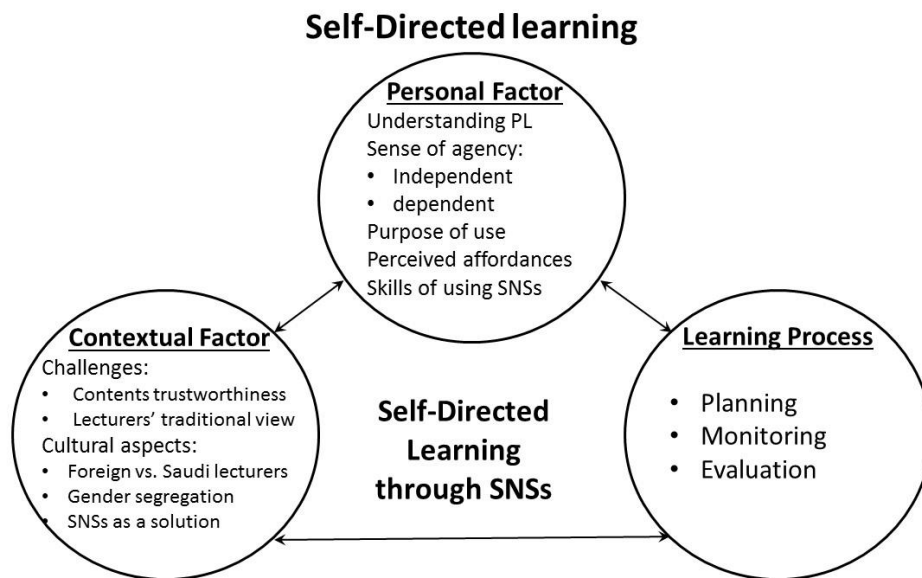


Figure 7-1: Self-Directed Learning factors and themes

7.2 Personal factors

As discussed in the literature review chapter, personal attributes are considered an important factor in SDL. Garrison (1997) stated that personal attributes refer to the learner's willingness and capability for taking responsibility for their own learning. This personal responsibility is seen by Brockett and Hiemstra (1991, p, 27) as a "cornerstone of self-direction in learning", which means that learners who have personal responsibility are able to have ownership of their learning, set learning goals and direct their thoughts and actions. Candy (1991) added that the learners' ability to take responsibility to direct their own learning increases explicitly within institutional environments such as classrooms. Furthermore, Kim et al. (2014) argued that this personal responsibility has not

only been developed in the traditional context, but it is also supported in the online environment. There are some personal characteristics that distinguish one individual from the others, such as life experience, life satisfaction, motivation, sense of agency, and self-concept. The following sections discuss issues related to the personal factor in self-directed learning, including the students' understanding of personal learning, their sense of agency, extent of dependence, their perceptions of SNSs' affordances, and their skills of using SNSs. These are personal aspects that influence, and are influenced by, their personal learning process.

7.2.1 The students' understanding of personal learning; Self-directed vs. Self-regulated

An initial issue that emerged from the analysis of this study was the meaning of the term 'personal learning' among the participants. As presented in the previous chapter, when the students talked about personal learning, three overarching themes emerged (see Figure 2 below): achieving learning goals independently, the students' self-responsibility for their learning, and the sense of control they have over their learning. However, these themes are clearly overlapping in some aspects, such as independence, responsibility, and control, which will be discussed in more detail later in this chapter. Despite the use of the term of 'personal learning' by the participants as one domain, it is not always clear how individual students perceive the nature of personal learning. It seems that the use of the term comprises other concepts such as self-directed learning and self-regulated learning.

Students' understanding of PL

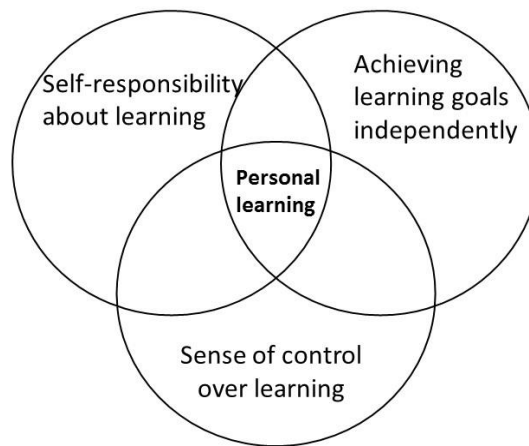


Figure 7-2: Students' understanding of personal learning

As some participants showed clear independence when they talked about setting their learning goals, choosing strategies, finding resources and assessing their progress, others expressed their expectations of their lecturers' help in setting goals, providing materials, or even designing tasks. The former group might use the term personal learning as a synonym for self-directed learning, while those who use it to mean performing tasks set by lecturers might refer to self-regulated learning (see Figure 3 below). As discussed in the literature review chapter, self-directed learning is used to describe learning activities outside the traditional university settings, while self-regulated learning is conducted mostly within the university settings (Jossberger et al., 2010 cited in Conradie, 2014). While SDL may be regarded as being at the macro-level, SRL is at the micro-level. According to Saks and Leijen (2014), the macro-level SDL refers to learners' ability to plan, choose strategies, set goals, find resources, and monitor learning activities. On the other hand, the idea of the

micro-level in SRL is concerned with the learners' performance of pre-determined tasks.

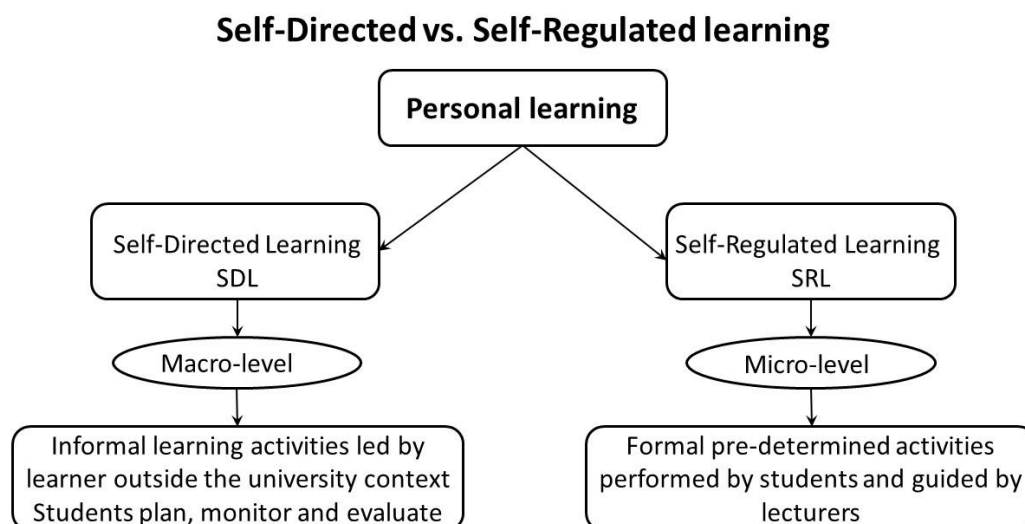


Figure 7-3: Self-Directed Learning vs. Self-Regulated Learning

The issue of having an ambiguous understanding of 'personal learning' among the participants of this study seems to be a common issue that is widely reported in the literature, not only among university students, but also among researchers. For example, Reinders (2010) discussed the students' autonomy during their learning process and argued that it was unclear what the term means or where the borders of independence lie. He added (2010:41) that "Although a great deal of theorising has taken place over the years (see Benson, 2007, for an overview), it sometimes seems as if autonomy has become a catch-all term, comprising other concepts such as motivation (Ushioda, 1996), awareness (van Lier, 1996), and interaction (Kohonen, 1992)". However, this lack of clarity in the use of the term might be justified, as Godwin-Jones (2011) argued, by the influence of different contexts on learners. He added that local, regional and national contexts need to be taken into

account when dealing with this issue. This might provide a reasonable explanation of the different recognition of the meaning of personal learning among this study's participants as there was a clear difference in the contexts they were engaged in, such as the study subjects, colleges, years of study, and the wider social backgrounds the individual students came from.

In addition to the context, the agency and control that students assume over their learning and their understanding of the lecturers' role and authority have emerged as important elements that need to be taken into consideration when studying students' use of social networks for personal learning. The difference between these two groups (independent and dependent students) of students can be easily recognised throughout the findings of this study. The students who showed more independence about their own learning agreed that they should not rely on what they receive in the lectures, rather they should widen their knowledge in the subject and increase their professional knowledge beyond the basic knowledge presented in lectures. On the other hand, those who tended to assume their lecturers' authority over their learning believed that their lecturers are responsible for their learning. Therefore, I argue that the sense of agency the students assume, and its extent is a crucial driver of their understanding of personal learning and their perceptions about it. This issue is discussed in more detail in the following section.

7.2.2 Sense of agency: independent vs. dependent learners

As presented in the findings chapter, the sense of agency and the assumed authority, responsibility and control over the learning process in the learning settings were found to be important elements that influence the students' learning process and their perceptions and understandings of personal

learning. Although the participants of this study were from the same university and might be regarded as members of the same wider context, it was reported that the students' perceptions about responsibilities and their assumed agency differ from one individual to another within the same context (Moore, 2008) which in turn might contain smaller different contexts. In this regard, Meyer (2010) and Thomas Jones and Ottaway (2015) discovered that some independent learners, within the same context, had strong agency and perceived themselves as 'agents of change' in the learning context, where they could act as independent learners, while other learners assumed that they were 'instruments' of stronger agents, who were the lecturers in this case. These two characterizations are discussed in the next sections (See Figure 4 below).

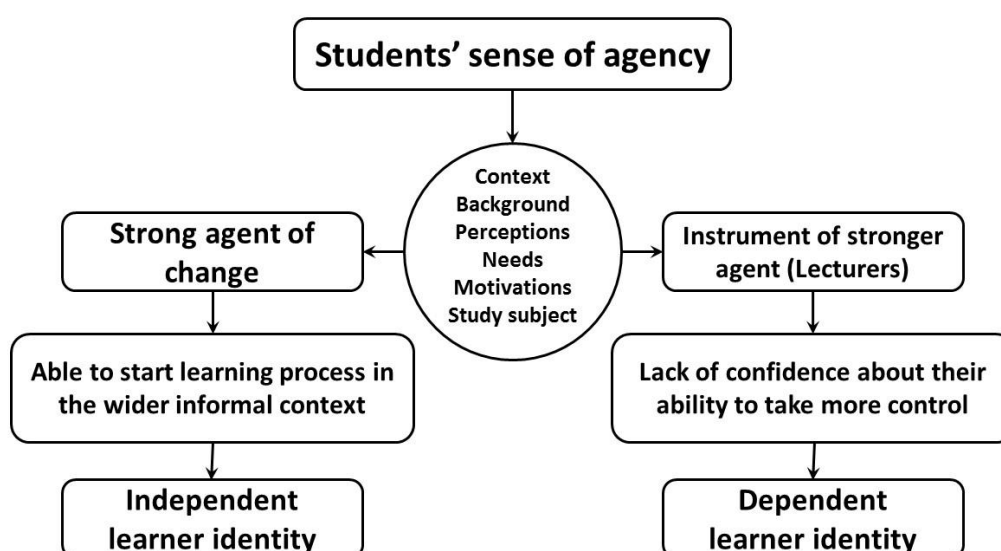


Figure 7-4: Students' sense of agency

7.2.2.1 Independent learners as strong agents of change

As presented in the findings chapter, the majority of the participants thought that lectures and their content are not enough to rely on to develop their learning because they only give a summary or foundation of the topics, according to

their points of view. These students indicated that they are totally in charge and responsible for their own learning that they need to develop personally because of the ambiguity of some lecture content and the lack of practical aspects, as lectures are presented merely in a theoretical way. They showed the ability to start their own learning process, starting with setting goals then choosing strategies, and ending with the ability to assess their progress and learning outcomes independently. This type of students have their own motivations, awareness, and strategies of interactions with different contexts to meet their educational needs and achieve their own learning goals. Therefore, students in this group perceived themselves as 'strong agents of change' who have the control to develop their own self-directed learning away from the official context of the university; they had developed an independent learners' identity. Meyer (2010) and Thomas, Jones and Ottaway (2015) argued that students who hold independent learner identity and assume a strong agency and control over their learning seek to understand their own learning needs, and are highly motivated to learn and engage in interaction with others to structure their personal learning environment. However, these others are not necessarily from outside the official context but, rather, they might include their lecturers who might be used as advisors or facilitators for their independent process of learning. This issue is discussed in more detail later in this chapter.

The strong agency that these students assume might be developed as a result of their views about the quality of the programmes they were engaged in and also from a mismatch between the course structures and their learning preferences. As presented earlier in the findings, participants who hold independent learner identity indicated that personal learning is more effective

than lectures because in personal learning, students learn according to their preferences regarding time, learning strategy, resources and environment or context. Also, the data indicated that lectures did not seem to meet their expectations regarding the quality of curriculum and teaching style or other course aspects. Therefore, these aspects might be argued as influential elements that contributed to developing their strong sense of agency and their independent learner identity.

7.2.2.2 Dependent learners as instruments of stronger agents

In contrast to the independent learner identity that most participants held, the study found that a minority depended on lecturers for receiving knowledge and assumed their lecturers' strong agency over their learning, although this dependence differed in its extent from one to another. These students may lack confidence in their ability to conduct and control their personal learning independently. This 'unreadiness' or unwillingness among some students to take more control over their learning is consistent with the findings of many studies that have investigated students' independence. For example, Reinders (2010) argued that some students are unwilling to take more control and be more active in their own learning and prefer to rely on the lecturers' management of their learning process (Brown, Smith & Usioda, 2007; Jing, 2006). During their learning process, these students perceived themselves as 'instruments' of their lecturers' strong agency. Unlike independent learners who went beyond the official context's borders to satisfy their learning needs, this type of learner did not feel they had the power to engage in informal contexts and filter or judge its contents. Therefore, they perceived themselves as only recipients of knowledge, perceiving their lecturers as having the power of

change in the learning process and themselves as subsidiary or dependent learners (Meyer, 2010; Thomas, Jones & Ottaway, 2015).

Several aspects emerged as reasons behind these 'dependent' learners' perceptions of their position and control in the learning process. The first reason was the assumed reliability of lecture contents compared to other resources. This view might also indicate their assumed lack of power outside the university setting in the unofficial contexts. They did not seem to be confident about their ability to judge the contents outside the structure of their course, which led them to perceive their position as instruments of 'reliable' strong agents of change who lead their learning process.

Another factor that might contribute to dependent learners' identity development is the lecturers themselves, as indicated by some participants in the findings chapter. They thought that lecturers' traditional views about learning and the responsibility for its process did not support students' personal learning, as lecturers saw the university classes as the only learning context. This lack of lecturers' support for the students to be independent learners, along with other contextual and cultural factors, might have led some students to be afraid of taking more control over their learning.

A third reason behind their dependence might be the study subjects, which was reported by some students to be an influential element. For example, in science colleges, some students indicated that they found it difficult to judge their learning progress or assess their learning outcomes themselves due to the difficulty of their study field. This issue of difficulty of science fields among students has been widely reported in the literature. For example, researchers

have explained this difficulty as due to the complexity of the concepts in science fields (Sokrat, Tamani, Moutaabbid & Radid, 2014). Others have found that science subjects introduce abstract concepts about which the students usually do not have previous experience (e.g. Ornek, Robinson & Haugan, 2008). Moreover, Millar (1991:66) argued that "the tension between science as consensually agreed knowledge and science as enquiry is confusing and eventually alienating for many learners". Therefore, the students' perceptions about their subject of study could be an influential element in developing specific learner identity.

7.2.2.3 Independent learner, but not alone

Being an independent learner does not mean learning in isolation from others. Independent learners do need help and support in order to develop their personal learning skills and to perform their learning activities effectively. This study's findings indicate that there was not much preparation or support from the university for students to develop the right skills for successful personal learning. The students believed that this was because personal learning skills are difficult to develop as individuals and that they would need modules in the university programme to develop these skills. They also mentioned their need for peers to help them during their personal learning. All these aspects do not seem to reduce the assumed control the independent learners hold over their learning but, rather, they highlight the importance of 'community of others' around the students in order to perform personal learning independently.

The first important support in developing the students' personal learning skills and independent identity might be the lecturers. This does not mean reducing the control of the learner, but rather guiding them to develop the required skills

and fostering them to move from the official to the unofficial learning context. Reinders (2014:16) argued that "Clearly, there is a potential role for teachers to support learners in developing the necessary skills". One of the important strategies suggested in the literature in this matter is to engage students with online contexts such as social networks and help them to move from the limited context of the university course to wider online contexts where they could act more actively and move towards more independence. According to Reinders (2010, 2014), the use of such online environments would offer lecturers the opportunity to foster the students' independence and help them to develop an independent learner identity.

In addition to lecturers, peers are seen by students as an important community for independent learners to engage with in order to perform their learning process, as mentioned earlier. This is consistent with what Godwin-Jones (2011) argued is the need for a community of peers. He claimed that the peer network is an important element in the development of independent learner identity, as the learner develops skills through interaction with this community.

In short, it seems that, in contrast to what the term 'independent learner' appears to indicate, in order for the students to be active independent learners and to develop the right skills to perform personal learning processes, they need a community of others to interact with and to seek help from. However, the balance between the freedom the students have in setting goals, planning, choosing strategies, and the support they need from the others in order to be independent learners is another issue that could be raised at this point.

7.2.2.4 Freedom and support: a balance issue to enhance students' independent personal learning

The balance between the freedom given to students in conducting their own learning and the guidance and support they need in order to perform effective and successful learning is an important issue that needs more consideration from educators. As discussed earlier, independent learners do need some sort of support from other agents. However, this support should not affect their control over their learning. Therefore, independent learners might exchange their power positions at some points during the personal learning process within the context in order to perform their independent personal learning properly. In other words, they are agents of change who have control over learning situations, but when he or she needs support or help at some points, they seek help from stronger agents. As discussed in the literature review chapter, in any given context humans can be seen as social producers and social products as they are not only capable of acting as agents of change in the environment, but they also act as 'instruments' of other agents' actions (Holland, 2001).

From the above, it can be argued that the support and guidance that students should receive in order to enhance their personal learning and foster their control over the learning process should move from material and information provision (as seen in the findings) to developing skills that are needed to be more independent. Godwin-Jones (2011) argued that helping students to become independent learners does not mean providing them with materials and information; rather, it means helping them to develop the required skills that enable them to perform self-directed learning through available platforms such as social networks. Guiding students to develop skills of being independent

learners in online contexts and to manage their learning effectively within these contexts can be argued to be a key point in fostering their independence. In this matter, Tess (2013:62) argued that "Instead of the information-focused paradigm (foundationalist), Web 2.0 afforded knowledge construction that was vested in globally diverse networks of learning".

Many researchers have proposed strategies for fostering students' independence (e.g. Conradie, 2014; Reinders, 2014). The first step should be engaging them with supervised tasks, and next allowing them to transfer from self-regulated learning (where they are supervised to some extent) to self-directed learning (where they take more control over the whole process of their personal learning). Reinders (2014) argued that educators can use personal learning environments that they direct themselves in order to enable the students to develop independent learning skills so that they can transfer from a Virtual Learning Environment that is institution-focused, to a Personal Learning Environment where they self-direct their study. In the same regard, Simons (2000) argued that, although self-directed learning takes place outside the formal study context because it is outside the educational authority of lecturers, these lecturers can help their students regulate their learning and can motivate them to direct their own learning outside the formal setting. Therefore, it can be argued that the development of students' self-directed learning does not happen if the lecturer is the only source of information. Rather, there is a need for scaffolding, which involves shifting the lecturer's role from educator to facilitator of learning and as a guide to students on how to find useful resources and how to develop personal learning (Conradie, 2014).

7.2.3 Social networks for personal learning: purposes and perceived affordances

In the previous sections, I discussed the students' perceptions about personal learning in general and their sense of agency when learning personally. In this section of the chapter, I focus more on the use of social networks as contexts for personal learning, how the students used them, and how they perceived their affordances in relation to personal learning. I also discuss the skills and strategies of using these sites for personal learning in light of the Self-Directed Learning framework and the challenges that faced students during their use of social networks for personal learning. This is followed by discussing the cultural and contextual aspects that affect, and are affected by, the use of social networks for educational purposes.

As shown in the questionnaire findings in Chapter Five, the vast majority of the university students have active accounts in more than one social network, mainly WhatsApp, Instagram, Snap Chat, Twitter and Facebook respectively. The qualitative findings also showed that almost all the participants in this study have strong relationships with social networks and prefer to communicate with others through SNS. This strong relation with social networks in Saudi Arabia is consistent with many studies investigating the use of these sites in the Saudi context, as shown in the following quote from Alsolamy's (2017) study.

There are more than 6 million active Facebook users in Saudi Arabia, with over 90 million YouTube videos being viewed daily — more than any other country worldwide (Al-Khalifa and Garcia, 2013). In addition, roughly 3 million Saudi Arabians are active Twitter users, with almost half (47%) of all tweets in the Arab world generated by Saudi Arabians (Arab Social Media Report, 2013). Recently, the Dubai School of Government released a study on social media in the Arab world. According to this report,

Saudi Arabians are the most active social media users in the Arab world.

This popularity of SNSs and the extensive adoption of them among Saudi Arabians could be argued to be an encouraging factor for using them in the educational field. Stanciu, Mihai and Aleca (2012) argued that the use of social networks on a daily basis, where users spend a long time on these sites, can be a support for educational purposes. Also, this familiarity with SNSs among Saudi students increases the probability of students using them in education and makes it easier for educators to invest in them to improve student learning. Reinders (2014:15) stated that "In my own teaching I have found this familiarity to be a major benefit, as it means I have to spend less time showing the students how to use the technology and have more time to show them how to learn with it". In the following section, I discuss the students' perceptions of using social networks for personal learning.

7.2.3.1 Students' perceptions of using social networks for personal learning

Most of this study's participants valued the role of SNSs in education. As presented in the questionnaire findings, most of the participants agreed that using SNSs for personal learning can improve students' performance, increase their confidence about their knowledge, and improve their course results. Also, the qualitative findings confirmed the students' appreciation of the role of SNSs in personal learning. They argued that it is necessary to use these sites to develop personal learning, and social networks were reported to motivate students to learn personally. This appreciation of the role of SNSs in improving the students' learning was widely reported in the literature. Many researchers have argued that the use of SNSs in higher education has enhanced students'

learning and increased the quality of teaching and learning. It was also reported in the literature that SNSs can develop students' self-directed learning processes and promote their motivation and engagement (e.g. Akbari, Eghtesad & Simons, 2012; Alsolamy, 2017; Callaghan & Bower, 2012; Heatley & Lattimer, 2013; Okoro, 2012; Almalki, 2011).

Furthermore, the findings of this study showed that the students were motivated to use social networks in their learning because of the peer support available through these sites. Creating an informal study context among colleagues who share the same interest seems to be a motivation for students to use SNSs for their personal learning. Previous research (e.g. Stanciu, Mihai & Aleca, 2012) has found that students use SNSs because they find them a good opportunity to communicate with their colleagues in order to support their educational activities. Moreover, the findings showed that new technology such as social networks attracts students to learn personally because they are interesting and enjoyable, and this helps them to learn in an enjoyable atmosphere, as has been widely reported in the literature (e.g. Alqirnas, 2014; Junco, Heiberger & Loken, 2011; Yunus et al., 2012). The students were on the whole very positive toward the role of SNSs in their personal learning, and most used them to support their learning, as consistent with Hague and Logan's study (2009). They also felt more confident with their learning process than in the formal setting of the university, which was consistent with Connolly's study (2011). However, their recognition of SNSs' affordances and their purposes for using these sites for study varied according to many contextual and personal factors, which could lead to different practices among different students.

7.2.3.2 Affordances of social networks

Although most of the participants understood personal learning as taking control over their learning process and holding responsibility for their own learning, and although most of them assumed that they were independent learners who could perform learning activities independently, as discussed earlier in this chapter, they actually seemed often to use social networks to support formal tasks set by their lecturers within the course framework. The findings related to their use of social networks for educational purposes showed that they used SNSs to support course materials, search for further information about topics, overcome the lack of practical aspects in lectures, find materials for assignments, and receive notification about the course process, as shown in the qualitative finding chapter. The questionnaire findings also showed that the majority of students thought that learning personally using SNSs includes finding information about the course, finding resources related to the course, and seeking help for assignments.

The previous literature showed that this lack of recognition of SNSs' affordances was a common issue among university students, especially in Saudi Arabia. Aldraiweesh (2015) indicated that the spread of Facebook use among university students in Saudi Arabia had led to developing educational purposes for it, such as academic communication with their lecturers, providing students with resources that help to increase their educational attainment and spreading awareness of events or announcements regarding their courses. As discussed in the literature review chapter, he argued that Saudi students had a positive attitude toward the use of Facebook groups at universities because such sites facilitate the students to gain course information, such as

cancellation of a lecture, room changes or deadline reminders. Also, Madge et al. (2009) and Al-Tarawneh (2014) found that university students who contacted their colleagues through SNS groups had more opportunity to have their questions answered, receive advice from their lecturers, and discuss educational issues that interested them. Although these purposes of use and affordances of SNSs might be seen as advantages of SNSs and beneficial, the students do not seem to recognise how these technologies could help them to perform independent learning activities and might raise a question about their understanding of independent learning. When the students discussed the educational affordances of SNSs, they always mentioned learning in a preferred way and taking control over the learning process. However, their actual use indicated that this control might be meant by students as the control over choosing the resource that they obtain the course related materials from. In other words, although the students think SNSs are good tools that enhance their informal personal learning, some of them actually use it as course supporting tools.

As discussed in the literature review chapter, the educational affordances of SNSs offer opportunities for students to be self-directed learners in a supportive social context. This is consistent with Robertson's study (2011) which found that SNSs' affordances help students to develop their own self-directed learning, including generating their own learning goals, planning how to solve the problems, and evaluating whether their own learning goals have been met. However, students seem to need guidance and preparation in order to be able to individualize SNSs as their independent learning environment and widen the scope of their study beyond the formal context of the university. The

accessibility in SNSs could offer both lecturers and students the opportunity to engage in an interactive learning environment where the students could take a more leading role with the help and guidance of their lecturers. Therefore, the students' skills in using SNSs for personal learning and the strategies that they adopt when learning with SNSs might be seen as a key issue that determines their personal learning process and shapes the scope they learn within. In the next sections, I discuss the students' skills and strategies of using social networks for personal learning.

7.2.4 Students' skills of using SNSs for personal learning

As the skills of using social networks for personal learning among university students and the strategies that they adopt when studying with these tools are seen as important elements that shape their performance, these issues are discussed in more detail in this section.

7.2.4.1 Development of the students' skills of using SNSs for personal learning

First of all, the questionnaire findings showed that the vast majority of participants thought that they had either intermediate or advanced skills in using social networks for personal reasons and that they had developed these skills by themselves without any help from others. However, the interview and diary findings showed that the students were aware, to some extent, of their lack of skill in using SNSs for educational purposes. They indicated that the support they received from lecturers only took the form of encouragement to use these tools without assistance in developing the required skills to deal with SNSs for personal learning. Nevertheless, they needed academic and professional support rather than mere encouragement and therefore they expected to have

access to courses in personal learning skills. This lack of support and preparation was reported to lead students to undesired outcomes or reaching wrong conclusions.

In order to overcome the lack of support and preparation, the findings showed that the students took responsibility for developing their own skills of personal learning through social networks by practice and by using YouTube, for example, to develop their skills in using SNSs for personal learning. Although self-development could help students to develop their personal learning skills through SNSs, the findings also indicated that they do need professional support from the university staff to guide their development and avoid any undesired outcomes, as discussed in the agency section previously.

It has been reported in the literature that the technical skills of using social networks are not enough for successful personal learning through these tools; rather, as Zahidi and Binti (2012) argued, they need to develop skills and cognitive strategies in how to use these networks for learning purposes, including the ability to plan, set goals, monitor learning progress, and make the most of available resources and materials (Self-directed learning process) which could in turn lead to recognising further affordances that these sites might offer. The lack of these types of skills among students is likely to lead them to experience difficulties and sometimes failure to achieve their learning goals and meet their learning needs within an isolated learning context (Kim et al., 2014). Rajagopal et al. (2012) added that, in order for the students to be successful in their personal learning through SNSs, specific skills are needed. For example, how to engage in dialogue with others and communicate thoughts or views to

listeners are skills that enable the student to develop personal learning and to make connections within the learning context.

In the same regard, the lack of the skills required to perform successful personal learning through social networks could lead students to avoid using these sites for their study and turn to more traditional ways of communication, such as face-to-face meetings with peers and lecturers. Brady, Holcomb and Smith (2010) indicated that half of North Carolina State University's students preferred face-to-face communication in the learning process over using SNSs. This was because the latter was a new experience for them and they only had basic skills in the use of SNSs. Thus, they did not have enough knowledge about using SNSs or their benefits. This means that, although the previous experience of using SNSs or the familiarity of students with these sites is a key element for facilitating learning, more training is needed to help both lecturers and students to achieve their aims faster and more easily (Arquero & Romero-Frías, 2013).

This sheds light on the lecturers and academic staff themselves and their skills, both in using SNSs for personal learning and skills that enable them to help students to develop these skills. As seen in this study's findings, only a small minority of the participants reported that they had received help and support from their lecturers on how to use SNSs for personal learning. This might indicate a lack of skills among lecturers themselves and their need for training in how to help students to develop the skills of personal learning through social networks. According to Carson and Mynard (2012, cited in Lai, 2015), teachers have several ways of facilitating students SDL outside the classroom: by giving students conceptual information that can increase their consciousness of the

learning process; by giving students suitable methods to find resources; or by giving them psychological support that can help to direct their own learning.

At this point, I argue that academic staff support for students to develop the skills of personal learning through SNSs would need to be based on the new roles of the students and lecturers and the balance between their responsibilities. As discussed earlier in this chapter, it was quite common among lecturers to assume their strong agency against the 'passive to some extent' role of students during the teaching and learning process. Therefore, lecturers need to shift from being knowledge providers to being facilitators or guides as a first step in order to provide students with the cognitive and psychological tools needed to perform independent personal learning through SNSs. Kim et al. (2014:151) stated that, in order "to facilitate a balance between instructor and student roles, Smith and Haverkamp (1977) recommended the reinforcement of self-directedness and the use of "learning how to learn" activities as integral parts of formal course activities".

This takes us back to earlier in this chapter (section 7.2.2.4) where I argued that the support and guidance the students should receive in order to enhance their personal learning and foster their control over the learning process should move from material and information provision to developing the skills needed to be more independent. Guiding students to develop the skills of being independent learners in online contexts and to manage their learning strategies effectively can be argued as a key point in fostering their independence. The strategies of personal learning using SNSs is discussed in the next section of this chapter.

7.3 Learning process

Learning process refers to learners' autonomous learning process, which means the process of learning that is performed mainly by the student who takes responsibility for the action to achieve his or her learning goals (Song & Hill, 2007). Specifically, Moore (1972) stated that the learning process includes planning, monitoring and evaluating learning outcomes. Learning process does not occur only in the formal educational environment at university, but also in the online environment. Researchers (e.g. Knowles, 1989) argued that, in order for students to be successful in the independent learning environment, they have to be active in managing their own learning processes. In the online learning setting, three areas of learning process have been examined: planning, monitoring and evaluation. These areas of process are discussed in the following sections of the chapter as the second element of Self-Directed Learning theory.

7.3.1 Strategies of using SNSs for personal learning

Both the qualitative and quantitative findings illustrated the strategies that the students adopted when using SNSs for personal learning. It can be seen that the students lacked the self-directed learning skills whereby they should be able to manage their learning independently by setting goals, planning, monitoring, and evaluating their learning process. They tended to use social networks as tools to support the formal course tasks such as contacting peers or lecturers to get information about their course activity, assuming that this process constituted self-directed learning. For example, the questionnaire findings showed that most of the participants only used SNSs to communicate with their colleagues regarding course activities, showing less awareness of the

affordances of these tools and how to perform independent self-directed learning. According to Higgins, Xiao and Katsipataki (2012), when using technology for educational purposes, its value depends on how technology is used and the relationships between technology and what is being learned. Therefore, Higgins et al. (2012) argued that it is the matter of 'how' to use tools rather than 'what' to use in order to learn with technology.

This lack of strategies for personal learning among university students seems to be a common issue that has been widely reported in the literature. For example, Kim et al. (2014) argued that university students may lack the cognitive and psychological strategies that are required to perform successful personal learning in online contexts (Schrum & Hong, 2002). This lack of strategies among students could be justified and explained by this study's findings because the students complained about the lack of support they received from academic staff, which might in turn have led to the lack of strategies among students. Similarly, the questionnaire findings showed that their lecturers did not provide them with any support that could help them to develop their personal learning through SNSs. The absence of support of academic staff may be argued as a core issue that needs to be considered in order to improve the students' personal study experience. Vajataga and Fiedler (2009, p.58) argued that, for online personal learning, "educational experiences need to be constructed in a way that provides opportunities for participants and facilitators to organize and manage their activities in technologically rich contexts". This construction of educational experience may be led by lecturers at the beginning, as discussed earlier in this chapter, in order to shift the students' role and help them develop from being actors in self-regulated

learning (managed by lecturers) to being more independent performers in self-directed learning (managed by the students themselves) after developing the required skills through the former.

Callaghan and Bower (2012) argued that adopting different strategies for using SNSs for personal learning would lead to different results. Therefore, the initial role of lecturers in the students' use of SNSs for personal learning should be an active one in order for students to develop the skills that enable them to choose the right strategy for their learning goals. Alsolamy (2017), who studied the use of social networks in higher education in Saudi Arabia, revealed that lecturers could have an important role in influencing student behaviours and perceptions during the learning process. He added that (2017:24) "The lack of online presence of teachers may have indicated to students that their work would not be checked and, therefore, it was not necessary to complete".

In short, and in order to help students to shift from being dependent on lecturers to being independent learners, their self-directed learning skills need to be developed with the help of their lecturers, taking into account the roles and responsibilities of each of them, as discussed earlier in this chapter. Self-Directed Learning theory is arguably an appropriate foundation to achieve this goal by personalising the learning system in order to develop the students' SDL skills and to improve their ability to effectively manage their learning independently (Kim et al., 2014). They argued that "SDL skills exist to some degree in all learners; this study finds that students' SDL abilities can improve when a course adopts a personalized and collaborative learning system that enables the students to be more proactive in planning, organizing, and monitoring their course activities" (Kim et al., 2014:151). Therefore, negotiating

the roles of the lecturers and students and their positions and responsibilities should always be highlighted in order to give the students more control and provide them with the necessary skills, according to many studies which have investigated this issue (e.g. Boud, 1981; Robertson, 2011; Teo et al. 2010 cited in Kim et al., 2014). However, it should be acknowledged that self-directed learning through SNSs might be seen as quite difficult by the students themselves because of the greater control and responsibility they would have to take for performing, monitoring, and managing their own learning (Thawabieh & Rfou, 2015). In the next section, I discuss the processes of Self-Directed Learning: planning, monitoring, and evaluating learning as a frame for personal learning through social networks.

7.3.2 Planning for personal learning

As discussed in the literature review chapter, planning for personal learning refers to the students' activities of managing and organising their own learning tasks including several behaviours such as setting goals, learning sequence and learning strategies (AlAgha, 2009). This greater student responsibility for this type of learning might have influenced the questionnaire participants' views (presented in Chapter Five) about planning for personal learning through SNSs. It was found that, although the students seemed to take responsibility for their personal learning, they found it difficult to plan for it independently. However, the qualitative findings showed that students believed in the importance of advance planning for personal learning. It was found that planning in advance helped them choose the appropriate SNSs that met their needs and improved their learning process and helped them to achieve their learning goals.

Although they tended to expect help from others in order to plan for, and to perform, their personal learning, they created their own references to identify their personal learning needs. The content of lectures was the guide for students to identify their needs and weaknesses, through writing notes about further information needed or unclear points to refer to later to develop their personal learning through SNSs. However, this self-identification of needs among university students could sometimes be misleading, according to the literature, and they still need to develop self-directed learning competences in order to be able to set learning goals and perform their learning independently. Reinders (2010) found that students often have no idea about their learning needs and sometimes there was a mismatch between what the students assumed and their actual educational needs according to their weaknesses. This inability to identify learning needs could be overcome by involving students in an online learning environment, as discussed earlier in this chapter, which could shift their role from being actors in a self-regulated learning environment (managed mainly by lecturers) to agents of change in self-directed learning activities. This was found to be an effective strategy when Kim et al. (2014) conducted an experimental study involving two groups of university students: an experimental group which had access to an enhanced SDL system, and a control group that used technology without enhanced SDL features. They found that SDL competences in planning learning activities was greater for the experimental group than for the control group.

However, one should consider the students' understanding of their role in planning for personal learning. The findings showed that some students assumed less control when planning for personal learning. They thought that

their planning should follow the lectures' goals and their role was to find the best paths to achieve these goals. This perception can be seen clearly when the students use the lectures as references to identify their learning needs and when some of them indicated that they do not follow plans due to the flexible open access nature of SNSs. This perception of less control or 'lecturer's authority' need to be considered by lecturers themselves in order to help students to develop an independent learner identity and plan their own self-directed learning, from setting goals to evaluating outcomes. Reinders (2010) argued that setting goals by students themselves would help them to be clearer about the sequences they want to reach. Self-directed students are those who are able to set their own goals and identify their learning opportunities (Nunan, 1999 cited in Reinders, 2010). Therefore, planning for personal learning does not only include deciding about learning tasks to reach goals set by others, rather, it should include setting the students' own goals that lead them to specify their destinations during the learning process. Reinders (2010:47) argued that "setting goals and planning learning are different sides of the same coin. Whereas one's goals help to specify one's destination, planning is like finding the best road to get there".

Freedom in self-directed learning is a core issue in this type of learning. Being the main agent of change, the students are expected to set their own goals, choose their strategies, tools, and resources. However, it was reported in the literature that students having full control over their learning and having 'too much freedom' can be problematic. Valjataga and Fiedler (2009:66) stated that this too much freedom "can create chaos and can be seen also as an inhibiting aspect for the learning process. Setting up one's goals independently can be

seen as positive and negative, since most students experienced that it is not that easy to clearly define one's goals". This issue takes us back in this chapter when I discussed the issue of the balance between freedom and support. I argued that guiding students to develop self-directed learning skills and plan, monitor and evaluate their learning progress effectively within these contexts can be argued as a key point in fostering their independence and developing their SDL competences.

7.3.3 Monitoring personal learning progress

As discussed in the literature review chapter, personal learning self-monitoring aims to develop learning processes, and it has been described by Garrison (1997) as the internal cognitive dimensions that are connected with the learners' thinking and monitoring of learning. Monitoring progress focuses on cognitive and metacognitive processes such as making information meaningful, learning how to learn, awareness, and thinking about thinking (Tan et al., 2011). Although the majority of the interview and diary participants believed that they are able to control and monitor their personal learning, a number of students expressed their need for others, especially lecturers, to monitor their performance during personal learning. They showed a lack of confidence in their ability to control and monitor their learning personally which led them always to seek help. This was more noticable among those in the earlier years of study, as some of them thought that it was too early to monitor their performance independently. Therefore, the importance of the development of SDL competences emerges again here and the shift in the roles and responsibilities between lecturers and students becomes the point of debate. The development of the students' SDL competences does not happen if the

lecturers are the agents of change and the only source of information. Rather, there is a need for scaffolding, which has been described as shifting the lecturers' role from educators to facilitators of learning and as guides to students on how to perform personal learning independently (Conradie, 2014). Developing the required skills and competences of self-monitoring can be seen as a very important aspect of the personal learning process because it enhances the students' ability to take more responsibility for their own learning, which in turn leads to creating confidence, motivation and persistence in learning (Abdullah, 2001; Taylor, 1995 cited in Kim et al., 2014). Therefore, increasing students' level of accountability for seeking help and resources is needed in order to develop their self-monitoring skills in the online learning environment (Song & Hill, 2007).

Although self-monitoring is a very important aspect of self-directed learning, it does not mean working in isolation, but rather, "interaction and feedback are necessary in order to continually reshape one's learning process for achievement" (Kim et al., 2014:159). It was clear in this study's findings that even the students who showed more confidence in their ability to control and self-monitor their learning were, to some extent, working in isolation. This was clear from the strategies they followed to monitor their progress, such as observing their examination results, identifying weaknesses and then working on them and setting a table of priorities, as presented in Chapter Six. Valjataga and Fiedler (2009) found that the lack of support and feedback could affect the students' progress negatively because the students stray from their initial goals or be afraid of failure or of making wrong choices during their self-directed learning. This highlights the students' need for a community of others (including

peers and lecturers) to interact with and to seek help from in order to be able to track their learning progress and to be more confident in refining their learning activities (Kim et al., 2014).

7.3.4 Evaluating personal learning outcomes

As the students seemed to perform self-monitoring of their learning activities in isolation to some extent, they showed more need for others when it came to the evaluation of their learning outcomes. It is worth mentioning that monitoring progress is something different from evaluation or assessment of the outcomes. "Whereas monitoring one's progress is an ongoing task that takes place as part of every learning episode, assessment is usually less frequent" (Reinders, 2010:49). While in monitoring they depended on their own judgement, they tended to use others as references to assess the outcomes of their learning. As presented in the findings chapter, they used their lecturers' satisfaction as an indicator for assessing their learning outcomes, in addition to discussions with their colleagues about their learning. This might be a result of the fear of failure or of reaching unintended conclusions, which raises the importance of the community of others for personal learning even when learning independently. These fears might be related to the field of study or the structure of the course, as the findings revealed. For example, some of the science students indicated that they found it difficult to judge their learning progress or assess their learning outcomes themselves due to the difficulty of their study subjects. Another student stated that it was hard to self-assess her performance because she worked with research.

For some other students, examinations, assignment results, grades and averages were used as references to assess their self-directed learning

outcomes. This is a common strategy among university students, as Reinders (2010:49) argued that "Many students, understandably, want to have a sense of achievement and test scores can provide a kind of external validation that is important to them". However, many students expressed the importance of their lecturers' assessment and peers' feedback for their progress to ensure that they were going in the right direction. Although the students might need the community of others during their self-directed learning, they still need to take control of the overall assessment of their learning and self-reflect on their learning activities in order to improve them in a way that enhances their learning outcomes and better meets their pre-determined goals (Kim et al., 2014). Indeed, this recalls the balance between the freedom students should practise and the support they need in order to perform self-directed learning, as discussed earlier in this chapter. Therefore, the focus should be on developing the students' SDL competences through engaging them in supervised self-regulated learning experiences which would, in turn, prepare them to take more control throughout their self-directed learning.

In short, it can be suggested that introducing a model of self-directed learning through engaging the students at the beginning of their study, with an online module for example, would help them to develop important skills. I argue that, as discussed earlier, engaging students in self-regulated learning activities supervised by academic staff would increase their self-directed learning competence and enable them to shift from being dependent students to independent learners who are able to set learning goals, choose appropriate strategies and resources and evaluation their learning outcomes. It was widely reported in the literature that, when the students take part in online courses or

modules, they quickly develop self-directed learning abilities and they shift from perceiving their lecturers as the main source of knowledge to perceiving them as facilitators who provide them with some sort of support to perform their own self-directed learning (e.g. Takabayashi, 2015; Sze-Yeng & Hussain, 2010; Kim et al., 2014). In such experiences, the students would not only learn the course contents, but rather, and more importantly, would develop learning skills and learn how to learn.

7.4 Contextual and cultural factors

The contextual factors are the environmental elements and how they influence, and are influenced by, the students' level of SDL through SNSs. Examples of these contextual elements emerging from the findings of this study are the trustworthiness of social network contents, lecturers' traditional views on the role of students, student gender, and the community culture. Dina and Haronb (2013) argued that, to instil an attitude of "love to learn", the learning context has to be designed to reinforce self-directed learning. In this section of the chapter, I discuss the challenges facing the students when using SNSs for SDL, and the cultural aspects that shape, and are shaped by, their use of this technology for their personal learning (see Figure 7-5 below).

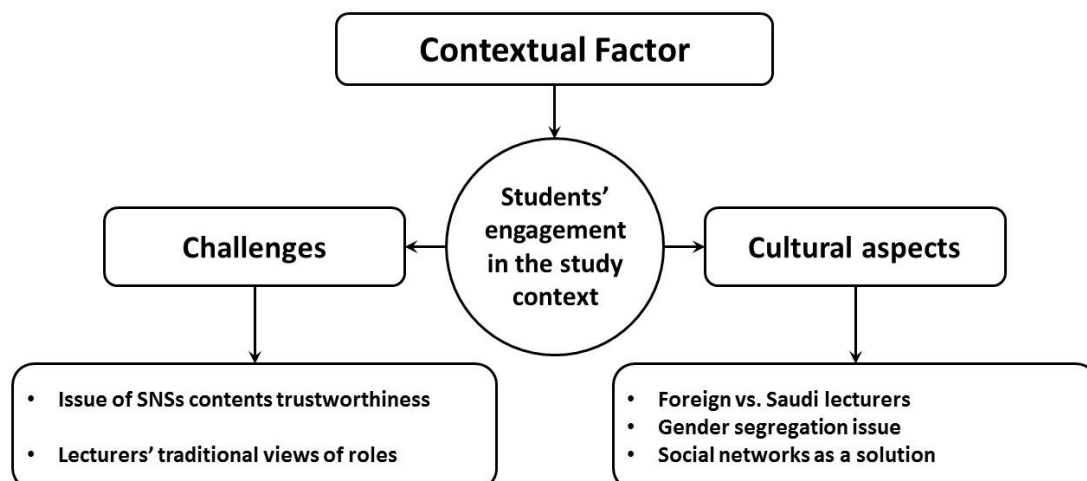


Figure 7-5: Contextual factors influencing students' use of SNSs for personal learning

7.4.1 Challenges facing students when using SNSs for personal learning

The findings of this study reported several challenges that existed within the context that significantly influenced the students' use of SNSs for personal learning. These challenges are discussed in the following part of this section.

7.4.1.1 The issue of the trustworthiness of SNSs' content

The issue of trustworthiness of social networks' content was an important concern among students and was seen as a challenge that they needed to consider. The students did not always trust materials found in social networks and they found it difficult to judge the contents. Many of them thought that, in social networks, most information was people's opinions, that anyone could contribute to the discussion, and that the open access nature of SNSs negatively affected their contents' trustworthiness. This has been widely reported to be an issue among social network users who use these sites as platforms for self-directed learning. For example, Song and Hill (2007) argued that the questionable validity and reliability of information found online is

another disadvantage of online resources such as social networks. Another study (Alsolamy, 2017) reported that a large number of academic staff in Saudi Arabian universities thought that there is a lack of accuracy and credibility in the information found in social networks. Also, Thawabieh and Rfou (2015) reported that Jordanian university students thought the possible inaccuracy of information found on Facebook to be an important issue.

As discussed earlier in this chapter, self-directed learners do not necessarily work in isolation, rather, their agency during the learning process is challenged and needs to be negotiated at some points. In this respect, the findings presented in Chapter Six show that even those who perform their personal learning independently needed some sort of cross reference in order to validate or verify the information they found in social networks. They did not depend solely on the social network content; rather, they sought further knowledge from other sources to validate this content. They also asked lecturers about the information they found in SNSs or went back to the lecture and reviewed its contents. Some of them, especially those who were in their early years of study, saw themselves as not having enough experience to judge the contents they received. This highlights the students' need for verification when using SNSs for their self-directed learning. As Alsolamy (2017) reported in his study, the contents of SNSs are not always accurate so academic staff encouraged students to find some sort of verification when dealing with these contents. Therefore, helping students to learn how to perform this verification and supporting them to gain the appropriate skills to validate the SNSs contents might be seen as a key element when dealing with the challenge of the trustworthiness of SNSs' contents. It is necessary to teach students how to

select the appropriate information from social networks and help them to get the skills required to do so (Song & Hill, 2007).

7.4.1.2 Lecturers' traditional views about teaching and learning: a responsibility challenge

Another challenge facing students when learning personally was their lecturers' traditional view about roles and responsibilities in the teaching and learning process. It was shown that the lecturers' traditional view, that students cannot learn independently of lecturers' teaching and that the university is the only learning context, does not support personal learning. This belief might have led to the lack of support provided for students during their self-directed learning. This issue is consistent with the findings of many studies. For example, Kleiner et al. (2007 cited in Stanciu, Mihai & Aleca, 2012) found that lecturers' resistance to use of social networks was a key issue that hindered students' use of this technology. Other studies found that most university staff were not keen to use SNSs in their teaching, nor to support their students' use for personal learning (Roblyer et al., 2010; Chen & Bryer, 2012; Alsolamy, 2017). Alsolamy (2017) added that the teaching styles that lecturers adopt are influential in shaping their relationships with their students. Lecturers who adopt teacher-centred styles were found to believe that self-directed learning occurring outside the university setting as being outside the university's responsibility (Alsolamy, 2017; Prescott, 2014).

In addition, Roblyer et al. (2010) argued that some lecturers preferred using traditional technology tools like email over social networks, perhaps because of their belief that privacy was an issue when contacting their students in social networks comparing to email. Therefore, the relationships between lecturers

and their students is the key point here. Alsolamy (2017) found that Saudi Arabian lecturers tend to keep the relationship with their students formal and restricted to the university setting. They seem to believe that they need to maintain the right distance between themselves and their students whether at university, online or in any other setting. This issue might have led lecturers to limit their relationship with their students to formal settings at the university.

In order to help students overcome this challenge and be successful self-directed learners, lecturers need to re-negotiate their and their students' roles during the teaching and learning process. They also need to re-evaluate their relationship with their students in order to help them to become more independent learners. As discussed earlier in this chapter, Godwin-Jones (2011) argued that helping students to be independent learners does not mean providing them with materials and information; rather, it means helping them to develop the necessary skills to perform self-directed learning through the available platforms such as social networks. The teaching style at the university needs to shift from the traditional way of providing students with information in classes to helping them to take more control over their learning and develop the appropriate skills to conduct their own self-directed learning. Social networks were argued to support and facilitate this shift in responsibilities between lecturers and their students (Alsolamy, 2017; Male & Burden, 2014) which lecturers need to consider in order to help their students to be self-directed learners.

7.4.2 Influence of cultural aspects on students' use of SNSs for personal learning

As this study investigated the Saudi Arabian female students' use of SNSs for personal learning, the unique conservative Saudi culture was found to be a very significant contributor to shaping the students' adoption of this technology and their relationships with others through these networks. The relationship between male and female is a crucial concern in Saudi culture as there is gender segregation between males and females in all aspects of life, including education. In this section, I discuss the most important cultural aspects emerging from the findings of this study.

7.4.2.1 Foreign vs. Saudi Arabian lecturers

The findings of this study show that foreign lecturers, particularly those who come from western countries, were more interactive and more likely to support students in their personal learning by sharing information via SNSs and sending materials. The findings also showed that Saudi lecturers tended to concentrate on the students' attendance and the learning process during lectures and within the formal context of the university and the course structure. Culturally, this might be due to the nature of the education environment in western countries that considers online communication including SNSs as a part of education and gives students more responsibility and control over their learning process. For example, a study conducted in Ontario University (Symmons, 2013) showed that the majority of academic staff saw social networks as an important channel of interaction with their students. She also reported that more than half of them used this tool to communicate with their students in order to provide additional information that might help them beyond the course, and support students'

engagement and develop their own learning. According to Reinders (2010, 2014), the use of such online environments offers lecturers the opportunity to foster the students' independence and help them to develop an independent learner identity. This shift in the lecturers' role from being instructors to being facilitators was widely recognised, reported and considered in western higher education systems, as presented in the literature review chapter (Chapter Three).

On the other hand, as discussed in the previous section, Saudi Arabian lecturers tended to maintain a formal relationship with their students and limit it to the university settings within the course structure. Alsolamy (2017) confirmed this culture among Saudi Arabian lecturers. He argued that lecturers seem to believe that they need to maintain a distance between themselves and their students, whether at university or in online contexts. This culture among Saudi Arabian lecturers was argued to affect their academic perspectives and influence the extent of interaction between themselves and their students outside of university classes, including online contexts such as social networks (Gunawardena et al., 2009; Zaidieh, 2012 cited in Alsolamy, 2017). This issue seems to be among both male and female lecturers as a general educational culture, however, gender segregation in Saudi culture might have made this issue even more problematic when communication occurs between the two different genders. This issue is discussed in more detail in the following sections.

7.4.2.2 Communication between males and females through SNSs as a cultural issue

It is clear in the findings that some students showed significant concern about communicating with males, both offline and online, in light of the gender segregation in Saudi society. To those students, contacting males via SNSs, even for educational purposes, was a cultural challenge that hindered their personal learning process, and they refused to challenge this culture. This issue has been widely reported in the literature. Female students are expected to limit their communication with unrelated males and avoid any unnecessary conversations with them (Alebaikan, 2010; Almalki, 2011; Alsolamy, 2017). However, some of the participants found that contacting foreign male lecturers was not as difficult as contacting Saudi male lecturers because they held different cultural norms and might be familiar with interaction between the genders. This suggests that the existence of people from outside the local culture in the online environment might contribute to weakening the norm of gender segregation in this conservative society, although Saudis are not likely to challenge their own conservative culture and tradition (Alsolamy, 2017).

However, not all students hold the same view even they live in the same cultural context. Many researchers (e.g. Alsolamy, 2017; Rosen et al., 2010; Green, Deschamps & Paez, 2005) agree that there is a clear variation within the same cultural context as these contexts include people with different backgrounds. Therefore, it is to be expected that some participants in this study would look at the use of SNSs to communicate with users of the opposite gender from a different point of view. Although a number of participants thought about contacting male users as a cultural issue that should be avoided even when the

purpose was educational, other participants thought that using SNSs to contact male users could provide a solution to the issue of communication between males and females. They thought that using such tools for communication could expand their learning opportunities and enable them to contact those who are difficult to communicate offline.

7.4.2.3 Social networks as a solution to the cultural issue of different gender communication

As the findings of this study show, some students believed that SNSs could be a solution to help to overcome cultural issues regarding the communication between males and females. They emphasised that females find difficulty in face-to-face communication with males. Therefore, they found that social communication via SNSs could solve this cultural issue. This view was also reported in the literature when researchers studied the online communication between users from different genders in the Saudi context. For example, Alebaikan (2010) and Al mulhem (2013) argued that, since Saudi Arabia is a conservative Islamic country that applies gender segregation in all aspects of life, e-learning may be an ideal solution to give both genders the opportunity to engage together in learning activities. Moreover, Altowiry (2005) stated that these technologies enable male and female users to overcome cultural challenges and communicate effectively to develop learning through engaging in different learning activities. Also, other researchers (e.g. Almalki, 2011; Alsolamy, 2017) found that use of these sites by female students had significantly improved their level of interaction and consequently improved the quality of their learning.

Although many students thought of social networks as a solution to a cultural issue, they still faced some cultural challenges when contacting others online. For example, even for those who used SNSs as an alternative channel to communicate with male users, they needed to maintain a high level of privacy and anonymity in the online contexts. This was expressed clearly by Alsolamy (2017) as he indicated that female users do not use their names, photos or any information that could lead to their identity. He added that "Instead, they use nicknames or pseudonyms and symbolic pictures to present themselves online, due to the sensitiveness and significance of these issues in Saudi society" (Alsolamy, 2017:200). This issue was seen as another challenge by users who used SNSs to overcome the restrictions of the communication between genders. Some of these users, according to Alsolamy (2017), complained that when using anonymous online identity, other users might not interact with them and might not accept them as serious users who want to communicate to learn.

In short, the conservative nature of the Saudi Arabian culture, especially with regard to communication between males and females, is a major issue that clearly influenced the female students' personal learning and limited their online learning process. The two different views, where contacting male users through SNSs was culturally taboo versus SNSs as an alternative channel to facilitate contacting male users, highlight the students' sense of agency as members of this conservative society. Those who thought that contacting males through SNSs was an issue did not think that they could challenge this culture, even online. On the other hand, others used SNSs as an 'acceptable' alternative channel that allowed them to challenge the culture of segregation by communicating with male users when performing their self-directed learning.

7.5 Summary of the chapter

In this chapter, I have interpreted and discussed the main findings revealed by the data analysis. The interpretation was informed theoretically by Self-Directed Learning theory and its elements, in addition to affordance theory and the concepts of identity and agency. It was divided into three sections based on the elements of Self-Directed Learning theory: personal factors, learning process and contextual and cultural factors. Under each of these factors, several points that were discussed in each section.

8 Conclusion

8.1 Introduction

This final chapter presents a summary of the study and its key findings. It discusses the study's contribution to knowledge theoretically and practically. It also presents some of the study's limitations, followed by implications for universities, lecturers, peers and online communities who could help to promote students' personal learning through SNSs. The chapter concludes with recommendations for further research and final comments.

8.2 Summary of the study and its key findings

The study aimed to explore the use of SNSs to promote personal learning by female Hail University students and seek the factors that influence the students' use of SNSs for personal learning. Self-Directed Learning theory was adopted as the theoretical framework of the study in addition to the Affordance theory and identity and agency concepts. The relationships between the Self-Directed Learning theory elements, affordances of SNSs, identity and agency the students held were examined and used to interpret the study findings in order to develop an in-depth understanding of the students' perceptions of the use of SNSs for personal learning. In order to achieve these aims, the following research questions were formulated, which the study sought to address:

- 1- What are Hail university female students' perceptions of personal learning?
- 2- What are Hail university female students' perceptions of the use of social network sites (SNS) for personal learning?
- 3- What are the relationships between Self Directed Learning (SDL) elements and the students' use of SNSs for personal learning?

- How do the students' perceptions influence their SDL activities?
- What is the relationship between the students' learning process and their use of SNSs for personal learning?
- How do the contextual and cultural factors influence the students' personal learning?

The study adopted case study as a research methodology in order to answer these research questions. As mentioned in the Methodology chapter, the case study facilitated the use of multiple research methods that helped to provide fuller insights into the answers to the research questions. I used questionnaire, semi-structured interview and text diary to collect both quantitative and qualitative data about the students' perceptions and use of SNSs for personal learning and obtain an entire picture of the complex relationships among the factors which influenced their perceptions and use according to the study's theoretical framework. The first phase of data collection (Self-Directed Learning questionnaire) aimed to examine quantitatively the students' perspectives of the use of SNSs for personal learning. It also sought to provide useful background information on the topic and the highlight main issues that need to be studied in more depth in the interview phase and text diary phase. In light of the questionnaire findings, the interview questions were reformulated and the text diary form was developed to provide clear interpretations of the students' use of SNSs for personal learning and provide a whole picture of the complex relationships among the factors related to this issue.

The findings revealed that the students' perceptions of personal learning are significant elements that shape their adoption of this type of learning. Also, their sense of agency and the control they assume over their own learning are important aspects that shape their perceptions. As explained in the qualitative

findings chapter, what the students think about their own responsibilities, as against their lecturers' responsibilities, in their learning seems to play a major role in their personal learning and the relationships between them and their lecturers in the learning context. The findings also showed how the students deal with social networks and the purposes they use them for, which were found to be important elements in their use of these networks for educational purposes. Their recognition of the technical and educational affordances of these social networks was also found to be another important element that forms their relationship with this technology when they use it for personal learning. Their recognition of, and their understanding about, the affordances of social networks also seem to be significantly linked to the sense of agency they hold and their perceptions about their own and their lecturers' responsibilities for their learning.

In addition, the skills of using social networks and the strategy they follow in order to perform personal learning presented in the findings chapter have significantly raised important points that influence the use of social networks for personal learning in the light of Self-Directed Learning theory. The findings also presented the challenges that the students face when they use social networks for personal learning, such as the issue of the trustworthiness of the contents of social networks and how these challenges might be overcome. Finally, the findings also showed the importance of many cultural aspects in forming and influencing the students' perceptions and performance of personal learning through social networks. These cultural aspects are extremely important in forming the students' relationships with social networks and with the others in

these networks, as this study focused on Saudi Arabian female students who are part of a unique conservative community.

8.3 Contributions to knowledge

The aim of this study was to investigate the use of SNSs to promote personal learning by female Hail University students and the factors that influence their use of SNSs to promote this type of learning. According to the study's findings and its discussion presented in the previous chapters, I argue that the study has contributed to knowledge theoretically and practically. These contributions can inform students, universities, lecturers, peers and online communities in order to improve and enhance the students' use of SNSs for personal learning. They provide useful insights into the students' perceptions of the use of SNSs for personal learning and the relationships between these perceptions and the students' identities, agency, recognition of SNSs' affordances and the complexity of these relationships. These contributions are presented in the next section.

8.3.1 Theoretical contribution

The study's theoretical framework has significantly enriched the study process and increased the quality of its findings. The interpretation of the findings was informed theoretically by Self-Directed Learning theory and its elements in addition to the Affordance theory and the identity and agency concepts. This enabled me to discover how the students' perceptions were formed and how their learning process was influenced by their perceptions about the division of responsibilities in the learning context. Also, how their recognition of social networks' affordances in conjunction with the sense of agency they hold could

influence their relationships with the others in the learning context and their personal learning strategies. The adoption of SDL theory in addition to the Affordance theory, identity and agency has widened the focus to include all influential aspects related to the use of SNSs for personal learning by university students and enabled understanding the complex relationships between the factors that influence the students' use of SNSs for personal learning. Therefore, according to what has been presented in the study findings, and in the light of the study's theoretical framework, this study may contribute theoretically to the field of educational technology and particularly the university students' use of SNSs for personal learning.

First of all, it was found that the term 'personal learning' was understood differently among different students according to several factors. While some of them understood it as achieving learning goals, others saw it as the self-responsibility for the learning process or the control over these processes. Despite the use of the term of 'personal learning' by the participants as one domain, it was not always clear how individual students perceived the nature of personal learning. Therefore, the term comprised different concepts among different students in terms of the extent of the control whether it is full control or guided by educators.

The sense of agency the students assume and its extent is found to be a crucial driver of their understanding of personal learning and their perceptions about it. What the students think about their responsibilities against their lecturers' responsibilities in their learning seems to play a major role in their perceptions related to personal learning and the relationships between them and the others in the learning context. Independent students who showed strong agency and

assumed full control over their learning process saw personal learning as Self-Directed Learning (where learning process and activities are led entirely by students). On the other hand, less independent students who assumed less control over their learning and perceived the authority of their lecturers understood personal learning as Self-Regulated Learning (where students perform pre-determined activities led by lecturers). These different understandings and perceptions of personal learning among students are linked to their sense of agency and might also be influenced by differences in the more local contexts in which they were engaged, as well as within the wider context such as their study subject, college, year of study, and the wider social backgrounds the individual students came from.

Furthermore, those who held an independent learner identity saw personal learning as more effective than lectures because in personal learning students learn according to their preferences regarding time, learning strategy, resources and environment or context. Also, lectures did not seem to meet these students' expectations regarding the quality of curriculum and teaching style or other course aspects. Therefore, these aspects might be argued as influential elements that contributed to developing their strong agency and their independent learner identity. On the other hand, dependent students perceived themselves as 'instruments' of their lecturers' strong agency. Unlike independent learners who went beyond the official context borders to satisfy their learning needs, these students did not feel they had the power to take full control over their learning.

Furthermore, the students' recognition of the technical and educational affordances of these social networks was also found to be another important

element forming their relationship with this technology when they use it for personal learning. Their recognition of, and their understanding about, the affordances of social networks was also significantly linked to the sense of agency they hold and their perceptions about their responsibilities and their lecturers' responsibilities for their learning.

Another important point is that the conservative nature of the Saudi Arabian culture, especially with regard to the communication between males and females, was found to be a major issue that clearly influenced the female students' personal learning and limited their online learning process. The two different views among students that were presented in the findings chapter, where some of them saw contacting male users as a cultural challenge and some of them saw SNSs as an alternative channel to facilitate contacting male users, highlights the students' sense of agency as members of this conservative society. For those who thought that contacting males through SNSs was a problem, they were not able to challenge this culture even in an online context. On the other hand, those who used SNSs as 'acceptable' alternative channels that allowed them to challenge the culture of segregation found a channel to communicate with male users when performing their self-directed learning. They thought that using such tools for communication could expand their learning opportunities and enable them to contact those who are difficult to communicate with offline.

Finally, the existence of foreign lecturers in the study context was found to be an important factor in the students' perceptions about communications between different genders. Some of the participants found contacting foreign male lecturers not as difficult as contacting Saudi male lecturers because they hold

different norms and might be familiar with interaction with the opposite gender. This suggested that the existence of people from outside the local culture in the online environment might contribute to breaking the norm of gender segregation in this conservative society.

8.3.2 Practical contribution

The study may also contribute practically to the field of higher education in relation to the students' use of SNSs for personal learning. The findings of this study reported that the students cannot work 'alone' and they need a group of others in order to facilitate their personal learning process. However, this does not seem to limit the assumed control the independent learners hold over their learning, but rather, it highlights the importance of 'community of others' around the students to develop personal learning independently. Students need colleagues and lecturers to interact with and to seek help from in order to develop their personal learning skills. However, the balance between the freedom the students have in their personal learning, and the support they need from the others in order to be independent learners is another issue that might be raised. This means that academic staff support for students to develop their personal learning skills through SNSs would need to be based on the new roles of the students and lecturers and the balance between their responsibilities. Thus, lecturers need to shift their roles from being knowledge providers to being facilitators or guides as a first step in order to develop the students' skills of being independent learners in online contexts and to manage their learning effectively within these contexts.

Moreover, the findings showed that when the students talked about the educational affordances of SNSs, they always mentioned learning in a

preferable way and taking control over their learning process. however, they did not seem to recognise what these technologies could offer them to perform independent learning activities. They seemed to need preparation in order to be able to individualize SNSs as their independent learning environment and recognise their affordances. Therefore, the accessibility in SNSs could offer both lecturers and students the opportunity to engage in an interactive learning environment where the students could take a more leading role with the guidance of their lecturers.

Regarding the SDL process, the findings demonstrated that some students assumed less control when planning for personal learning, which can be seen clearly when the students used their lectures as references to identify their learning needs. However, this perception of less control should be considered by lecturers themselves in order to help students to develop an independent learner identity and plan their own self-directed learning. It was also found that, although many students seemed to perform self-monitoring of their learning activities in isolation, a number of students expressed their need for others to monitor their performance during personal learning. This might be because they were from the first years of study that they showed a lack of confidence about their ability to monitor their performance independently. Therefore, increasing the level of responsibility among students would develop their self-monitoring skills. In contrast, it was found that most students showed more need for others when it came to evaluating their learning outcomes. They tended to use the others as references to assess their learning outcomes. For example, students used lecturers' satisfaction and discussion with colleagues about their learning as indicators to assess their learning outcomes. It is worth mentioning that even

though the students might need the community of others to assess their learning outcomes, they still need to take the control of self-reflection on their learning activities in order to improve their learning outcomes.

The contextual factor is an important element that influences the students' level of SDL through SNSs. According to the findings, most students faced issues regarding the trustworthiness of SNSs content. They argued that, due to SNSs' open access nature, most information found was people's opinions and they found it difficult to judge its content. In order to validate information that they found in these online sites, independent learners need cross references to improve their SDL competence.

Another issue students faced was educational culture. The findings reported that Saudi lecturers tended to focus on students' attendance and learning through lectures, unlike foreign lecturers who were more interactive and supported students in their personal learning by sharing information via SNSs and sending materials. As discussed above, the matter of contacting male lecturers online was another cultural problem faced by the female students.

2.4 Study limitations

Although this study provided significant contributions to theory and practice, there were several limitations due to limited time and resources as a PhD study. Firstly, as presented early in Chapter Four, this study used mainly the interpretive paradigm by adopting the case study as a qualitative approach, so its findings cannot be generalised. Wellington (2000) and Silverman (2010) confirmed that studies which adopt qualitative approaches such as the case study do not seek generalisation. Rather, they can transfer their findings from

the particular case to a wider case and thereby go beyond its main instance (Cohen, Manion, & Morrison, 2007). As reported in the Methodology chapter, the case study was an effective instrument that helped me to understand the issue of students' use of SNSs for personal learning and the factors that influence this issue in the whole context of Saudi Arabia. This expansion might be because of the similarities between the education systems and cultural backgrounds in the whole Saudi context, because all Saudi universities work under the umbrella of the Ministry of Education and they follow the same programmes (Alzaydi, 2010). However, it may be possible if there were more time and resources available to extend the study to other universities in order to give a clearer picture about students' use of SNSs for personal learning in the wider context of Saudi Arabia.

Secondly, the study aimed to establish trustworthiness and ensure the quality of the findings. As I am the researcher in this study, I had ways of making sure of the study's findings and its quality, such as receiving comments from supervisors, discussion with doctoral students and reviewing the data from academics and experts. However, the attitudes of the researcher herself and her points of view arguably shaped the study within the interpretive paradigm. Cassell (2012) claimed that, when analysing qualitative data, interpretive researchers bring their own perspectives to the interpretation, which can be considered as a limitation.

Another limitation was the small range of literature I found related to the study context. According to my knowledge and what I found in the literature in the Saudi context, very little research has been conducted on social networking sites and particularly the use of these sites in higher education for personal

learning. This therefore led me to seek more knowledge related to my literature review from research in other contexts. However, as an early study in this context, many important findings related to culture and the conservative society of Saudi Arabia were revealed as explained in the previous sections of this chapter.

Furthermore, the data collection for this study focused only on undergraduate students, which was seen as another limitation that needs to be reported. For example, conducting the study at other educational levels, such as postgraduate students, would increase the value of its findings because the postgraduate learning, by nature, requires independence, which would probably provide valuable information about the issue.

Moreover, the sample used in the study is another limitation that faced the researcher. The study was fundamentally based on university students' views about the use of SNSs for personal learning. It is possible that involving more stakeholders, such as university lecturers and cooperating lecturers, would provide more insight into the students' use of SNSs to promote their personal learning. Therefore, if there had been time and resources available to expand the study to other stakeholders, it would have been possible to get more valuable data from the open thematic analysis.

Finally, the gender of the sample was another limitation that faced this study. In the Saudi context, the educational system is seen as a unique conservative system that separates schools and academic institutions based on the students' gender. As a female researcher in this conservative context, the data was collected only from female university students to investigate the issue.

However, it may be possible to expand the focus of the study to involve male university students in order to provide a wider view about the students' use of SNSs for personal learning and what factors influence their use of these sites to promote their personal learning.

8.4 Implications

The implications of this study for educators, students and policy makers are presented in this section of the chapter.

8.4.1 Implications for educators

According to both the quantitative and qualitative findings, most university students have active accounts in more than one social network and they have strong relationships with these sites. This extensive SNS adoption among Saudi Arabians could be argued to be an enhancing factor of using them in the educational field. As Reinders (2014, p.15) stated: "In my own teaching I have found this familiarity to be a major benefit, as it means I have to spend less time showing the students how to use the technology and have more time to show them how to learn with it". Educators should therefore pay attention to the usefulness of these sites and invest in them in order to develop the students' personal learning and increase their level of SDL skills.

The findings also showed that most students used SNSs to communicate with their colleagues regarding the course activities, assuming this process as self-directed learning. This low level of awareness of the affordances of these tools and lack of SDL skills may be a result of lecturers' lack of support. The absence of academic support is seen as a core issue that needs to be considered by educators in order to develop the students' personal learning skills. Vajataga

and Fiedler (2009, p.58) argued that, for online personal learning, "educational experiences need to be constructed in a way that provides opportunities for participants and facilitators to organize and manage their activities in technologically rich contexts". In order to help students to move from being dependent to being more independent learners, lecturers should engage students in 'self-regulated learning' activities supervised by academic staff in order to increase their 'self-directed learning' competences and enable them to be more independent able to set learning goals, choose appropriate strategies and resources and evaluate their learning outcomes.

Regarding the issue of trustworthiness of the social networks' content, the students did not always trust materials found on social networks and they found it difficult to judge the contents. In order to increase the level of students' SDL competence by enabling them to evaluate social site contents, educator support should be considered as a key element to perform this verification. Therefore, lecturers need to prepare students in how to select the appropriate information from social networks and support them to gain the appropriate skills to validate the SNSs' contents.

As the lecturers' traditional view about roles and responsibilities in the teaching and learning process was seen as one of the challenges that the students faced when learning personally, educators should pay attention to overcoming this issue as it may hinder the students' development and their use of these sites for personal learning. Thus, lecturers need to re-negotiate their own and their students' role during the teaching and learning process. They also need to re-evaluate their relationship with their students in order to help them to be more independent learners and increase their SDL skills effectively.

8.4.2 Implications for students

According to this study's findings, the outcomes of the course lectures seem to be the guide for students to identify their needs. They write notes on the information still needed after lectures so that they can use it later to develop their personal learning through SNSs. However, this self-identification of needs might be misleading and they need to develop self-directed learning skills in order to enable them to set learning goals and perform their learning independently. Therefore, the students themselves should move their roles and responsibilities from being actors in a self-regulated learning environment to agents of change in self-directed learning activities.

Although many students expressed the importance of the others' assessment of their progress to ensure that they are going in the right direction, some students used examinations, assignment results and grades as a reference to assess their self-directed learning outcomes. This means that the student is the person who should take control of the assessment of her learning in order to improve the learning outcomes.

8.4.3 Implications for policy makers

The interview findings showed that there was not much preparation from the university for students to develop the appropriate skills for successful personal learning. Students believed that personal learning skills are difficult to acquire. They need materials that facilitate acquiring these skills. Thus, introducing modules for SDL skills should be considered by the university programmes in order to develop students' personal learning and increase their independence.

As mentioned previously, only a small minority of the participants reported that they had received help and support from their lecturers on how to use SNSs for personal learning. In order to develop the students' personal learning competences, lecturers and academic staff themselves and their skills in using SNSs for personal learning need to be considered by the university policy makers. The university should provide lecturers and academic staff with training in how to help students to develop the skills of personal learning through social networks and make this process part of their course structures.

8.5 Suggestions for further research

In the light of what has been explored in the current study and what has been revealed in its findings, some new questions that need further research in the field have arisen. First of all, as presented in previous chapters, case study was used as a qualitative approach focusing on female university students at the University of Hail in Saudi Arabia, its geographical extension to other contexts is recommended to provide more knowledge about the students' use of SNSs for personal learning. I suggest, therefore, that broadening the study to include other universities in Saudi Arabia could give a fuller picture of students' perspectives and uses of SNSs for personal learning.

Another extension to this study could be the gender of the sample, as the current study investigated only female university students. Investigating the use of SNSs for personal learning by both male and female university students could be the subject of further research that would enrich it with more knowledge about significant factors related to gender.

Moreover, conducting research on postgraduate students is needed in order to give further insight into the use of SNSs for personal learning and the factors that influence their use of these sites. The findings of the current study reported that educational level is an important factor that influences the students' use of these sites for personal learning. Thus, I suggest extending the scope of the research to include other educational levels, such as the postgraduate level, which would enrich the study and increase the value of its findings.

8.6 Final Comments

The current study investigated the use of social networks by female Hail University students to promote personal learning and the factors that influence their use of these sites for personal learning. The Self-Directed Learning theory and its elements in addition to the Affordance theory, the identity and agency concepts were used in this study as a theoretical framework to enable discovering how the students' perceptions were formed and how their learning process was influenced by their perceptions of the division of responsibilities in the learning context. It also explored how their recognition of social networks' affordances, in conjunction with the sense of agency they hold, could influence their relationships with others in the learning context and their personal learning strategies.

The study revealed several findings related to the use of SNSs by the students for personal learning. Four significant outcomes were highlighted. Firstly, it revealed that students believed that it was quite common among lecturers to assume their strong agency against the 'passive to some extent' role of students during the teaching and learning process. Therefore, lecturers need

to shift their roles from being knowledge providers to being facilitators as a first step in order to provide the students with skills needed to perform personal learning through SNSs and develop their independent identities. Secondly, the study found that, although the educational affordances of SNSs offer opportunities for students to be self-directed learners in a supportive social context, students seem to need guidance in order to be able to individualize SNSs as their independent learning environment. The third important outcome is related to the learning process; in order to develop personal learning skills, students need to engage in self-regulated learning activities supervised by lecturers in a way that enables them to increase their self-directed learning competence and enables them to shift from being dependent students to independent learners who are able to set learning goals, choose appropriate strategies and resources and evaluate their learning outcomes. Finally, as this study focused on female Saudi Arabian students who are part of a unique conservative community, two different views were revealed which highlighted the students' sense of agency. Some students believed that contacting males through SNSs was an issue, while others used SNSs as alternative channels that allowed them to challenge the culture of segregation when performing their self-directed learning.

At the end of this research experience, I recognise that this study has widened my knowledge about the university students' use of SNSs for personal learning, factors influencing their perceptions, their identities and agencies and what SNSs offer students to develop their personal learning. In addition, it has developed my research skills through my engagement with the research process, starting from reviewing the relevant literature at the beginning,

developing the research design, collecting and analysing the data and ending with explaining its findings according to its theoretical frameworks.

9 References

- Aghaei, S., Nematbakhsh, M., & Farsani, H. (2012). Evolution of the world wide web: From web 1.0 to web 4.0. *International Journal of Web & Semantic Technology*, 3(1), 1.
- Aifan, H. (2015). *Saudi students' attitude toward using social media to support learning*. (PHD), University of Kansas.
- Akbari, E., Eghtesad, S., & Simons, R.-J. (2012). *Students' attitudes towards the use of social networks for learning the English language*. Paper presented at the international conference "ICT for language learning"
- Al Mulhem, A. (2013). *Developing an e-learning training package for academic staff in one university in Saudi Arabia*. (PHD), University of Plymouth
- AlAgha, I. (2009). *Technologies to enhance self-directed learning from hypertext*. (PHD), Durham University.
- Alattas, O., & AlHassan, R. (2015). *The impact of teaching through social networks (Facebook) on academic achievement in the curriculums of the computer for students in the second grade secondary*. Paper presented at the International Conference For e-learning & Distance Education in KSA.
- Albabbain, A. (2015). *The educational uses of Twitter as a tool for social communication to serve curriculums at King Saud University* Paper presented at the International Conference For e-learning & Distance Education in KSA.
- Aldraiweesh, A. (2015). The Reality of Using Social Networking in Education at Teachers' Colleges- King Saud University
Journal of the Union of Arab Universities for Research in Higher Education, 34(2).
- Alebaikan, R. (2010). *Blended learning in Saudi universities: challenges and perspectives*. (PHD), University of Exeter.
- Alhazmi, A., & Rahman, A. (2013). Facebook in Higher Education: Students' Use and Perceptions. *AISS: Advances in Information Sciences and Service Sciences*, 5(15), 32-41.
- Aljabre, A. (2012). An exploration of distance learning in Saudi Arabian universities: Current practices and future possibilities. *International Journal of Instructional Technology and Distance Learning*, 9(2), 21-28.
- Almalki, A. (2011). Blended learning in higher education in Saudi Arabia: A study of Umm Al-Qura University.
- Alnesyan, A. (2012). *Teaching and learning thinking skills in the kingdom of Saudi Arabia: Case studies from seven primary schools*. (PHD), University of Exeter.
- Al-Otaibi, S. (2012). Alitqan in our writing and in our life. Scheherazade's sisters.
- Alqirnas, H. (2014). *Exploring Saudi undergraduates' intention to use social networks: Technology Acceptance Model (TAM) Analysis* (Master's dissertation), University of Exeter
- Alsenaidi, S. (2012). *Electronic brainstorming in Saudi primary education*. (PHD), University of Exeter
- Alshehri, H. (2012). *The impact of the use of electronic networks on social relations "Facebook and Twitter model" field study on a sample of students of King Abdul aziz University in Jeddah*. Master's thesis

- University of King Abdul aziz, Kingdom of Saudi Arabia
- Alsolamy, F. (2017). *Social networking in higher education: academics' attitudes, uses, motivations and concerns*. (PHD), Sheffield Hallam University
- Al-Tarawneh, H. (2014). The Influence of Social Networks on Students' Performance. *Journal of Emerging Trends in Computing and Information Sciences*, 5(3), 200-205.
- Altowjry, A. (2005). *Reforming higher education in Saudi Arabia: The use of telecommunications technology*. Master's Thesis
- Alturise, F., & Alojaiman, B. (2013). *Benefits and challenges of using ICT in Saudi Arabia universities: A literature review*. Paper presented at the International conference on advanced in computing, engineering and learning technologies, Abu Dhabi, UAE.
- Alzaydi, D. A. (2010). *Activity theory as a lens to explore participant perspectives of the administrative and academic activity systems in a university–school partnership in initial teacher education in Saudi Arabia*. (PHD), University of Exeter
- Anney, V. (2014). Ensuring the quality of the findings of qualitative research: Looking at trustworthiness criteria. *Journal of Emerging Trends in Educational Research and Policy Studies (JETERAPS)*, 5(2), 272-281.
- Arquero, J., & Romero-Frías, E. (2013). Using social network sites in higher education: an experience in business studies. *Innovations in Education and Teaching International*, 50(3), 238-249.
- Association, B. E. R. (2011). *Ethical guidelines for educational research* (Nottingham, BERA).
- Avdal, E. (2013). The effect of self-directed learning abilities of student nurses on success in Turkey. *Nurse education today*, 33(8), 838-841.
- Aydin, S. (2012). A review of research on Facebook as an educational environment. *Educational Technology research and development*, 60(6), 1093-1106.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. New York: Prentice-Hall.
- Bani-Hani, N., Al-Sobh, M., & Abu-Melhim, A.-R. (2014). Utilizing Facebook groups in teaching writing: Jordanian EFL students' perceptions and attitudes. *International Journal of English Linguistics*, 4(5), 27-34.
- Banz Jr, R. (2009). *Exploring the personal responsibility orientation model: Self-directed learning within museum education*: The Pennsylvania State University.
- Baran, B. (2010). Facebook as a formal instructional environment. *British Journal of Educational Technology*, 41(6), 146-149.
- Barnard, R., & Campbell, L. (2005). Sociocultural theory and the teaching of process writing: The scaffolding of learning in a university context. *The tesolanz Journal*, 13, 76-88.
- Barry, C. (1998). Choosing qualitative data analysis software: Atlas/ti and Nudist compared. *Sociological research online*, 3(3), 1-13.
- Bell, J. (2005). *Doing Your Research Project: A Guide for First-time Researchers in Education, Health and Social Science*. England: Open University Press.
- Boezerooij, P. (2006). *E-learning strategies of higer education institutions: an exploraty study into the influence of environmental contingencies on*

- strategic choices of higher education institutions with respect to integrating e-learning in their education delivery and support processes:* (Ph.D), University of Twente
- Bogdan, R., & Biklen, S. (1996). *Qualitative research for education: An Introduction to Theories and Methods*. New York: Pearson Publications.
- Bolger, N., Davis, A., & Rafaeli, E. (2003). Diary methods: Capturing life as it is lived. *Annual review of psychology*, 54(1), 579-616.
- Bonk, C., Lee, M., Kou, X., Xu, S., & Sheu, F.-R. (2015). Understanding the self-directed online learning preferences, goals, achievements, and challenges of MIT OpenCourseWare subscribers. *Educational Technology & Society*, 18(2), 349-365.
- Bourdieu, P. (1986). The Forms of Capital. . In J. Richardson (Ed.), *Handbook of theory and research for the sociology of education*. (pp. 58-260). New York: Greenwood Press.
- Bourlova, T., & Bullen, M. (2005). *The impact of e-learning on the use of campus instructional space*. Paper presented at the International Conference on Web-Based Learning, Canada
- Bowen, G. (2009). Supporting a grounded theory with an audit trail: an illustration. *International Journal of Social Research Methodology*, 12(4), 305-316.
- Bowers-Campbell, J. (2008). Cyber “pokes”: Motivational antidote for developmental college readers. *Journal of college reading and learning*, 39(1), 74-87.
- Boyatzis, R. (1998). *Transforming qualitative information: Thematic analysis and code development*. USA: Sage Publications.
- Brady, K., Holcomb, L., & Smith, B. (2010). The use of alternative social networking sites in higher educational settings: A case study of the e-learning benefits of Ning in education. *Journal of Interactive Online Learning*, 9(2), 151-170.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.
- Brockett, R., & Hiemstra, R. (1991). *Self-direction in adult learning: Perspectives on theory, research, and practice*. London: Routledge.
- Brown, J., Stillman, G., & Herbert, S. (2004). *Can the notion of affordances be of use in the design of a technology enriched mathematics curriculum*. Paper presented at the Proceedings of the 27th Annual Conference of the Mathematics Education Research Group of Australasia, Sydney, MERGA.
- Brown, P., Smith, R., & Ushioda, E. (2007). Responding to resistance *Reconstructing autonomy in language education*. London: Springer.
- Bryman, A., & Burgess, R. (1994). Developments in qualitative data analysis: an introduction. *Analyzing qualitative data*, 1-17.
- Bryman, A., & Cramer, D. (1999). *Quantitative Data Analysis with SPSS for Windows: A Guide for Social Scientists*. London: Routledge.
- Buelga, S., Jesús Cava, M., & Musitu, G. (2010). Cyber-bullying: Adolescent victimization through mobile phone and Internet. *Psicothema*, 22(4), 784.
- Buzzetto-More, N. (2012). Social networking in undergraduate education. *Interdisciplinary Journal of Information, Knowledge, and Management*, 7(1), 63-90.

- Callaghan, N., & Bower, M. (2012). Learning through social networking sites—the critical role of the teacher. *Educational Media International*, 49(1), 1-17.
- Candy, P. (1991). *Self-direction for lifelong learning. A comprehensive guide to theory and practice*. San Francisco: Jossey-Bass.
- Carter, T., & Nugent, J. (2010). Personal learning networks: Implications for self-Directed. *Encyclopedia of Information Communication Technologies and Adult Education Integration*, 3, 226.
- Chapman, D., & Mahlck, L. (2004). Adapting Technology for School Improvement: A Global Perspective. *International Institute for Educational Planning*.
- Chemero, A. (2003). An outline of a theory of affordances. *Ecological psychology*, 15(2), 181-195.
- Chen, B., & Bryer, T. (2012). Investigating instructional strategies for using social media in formal and informal learning. *The International Review of Research in Open and Distributed Learning*, 13(1), 87-104.
- Cho, K., & Cho, M.-H. (2013). Training of self-regulated learning skills on a social network system. *Social Psychology of Education*, 16(4), 617-634.
- Cho, K., & MacArthur, C. (2011). Learning by reviewing. *Journal of Educational Psychology*, 103(1), 73.
- Cohen, L., Manion, L., & Morrison, K. (2000). *Research methods in education*. London, New York: RoutledgeFalmer.
- Cohen, L., Manion, L., & Morrison, K. (2007). The ethics of educational and social research. *Louise Cohen, Lawrence Manion, and Keith Morrison. Research methods in education. Sixth edition. London: Routledge*, 51-77.
- Coiro, J., Knobel, M., Lankshear, C., & Leu, D. (2008). Central issues in new literacies and new literacies research. *Handbook of research on new literacies*, 1-21.
- Collin, P., Rahilly, K., Richardson, I., & Third, A. (2011). The benefits of social networking services.
- Conner, T. R. (2012). *The relationship between self-directed learning and information literacy among adult learners in higher education*. (PHD), University of Tennessee, Knoxville
- Connolly, M. (2011). Benefits and drawbacks of social media in education. *WCER Research Highlights*, 22(4), 1-2.
- Conradie, P. (2014). Supporting self-directed learning by connectivism and personal learning environments. *International Journal of Information and Education Technology*, 4(3), 254.
- Couros, A. (2008). Safety and social networking: How can we maximize the learning power of participatory web sites while ensuring students are protected and behave responsibly? *Technology & Learning*, 28(7), 20.
- Creswell, J. (2007). *Qualitative enquiry and research design: Choosing among five approaches*. Washington: Sage publications
- Creswell, J. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. London: Sage publications.
- Creswell, J. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Boston: Pearson Publications.
- Cristea, A., Ghali, F., & Joy, M. (2011). *Social, personalized lifelong learning E-*

- infrastructures and technologies for lifelong learning: Next generation environments* (pp. 90-125): USA: Information Science Reference.
- Crotty, M. (2003). *The foundations of social research: Meaning and perspective in the research process*. London: Sage Publications.
- Czerkowski, B. (2014). Designing deeper learning experiences for online instruction. *Journal of Interactive Online Learning*, 13(2), 29-40.
- Dabbagh, N., & Kitsantas, A. (2012). Personal Learning Environments, social media, and self-regulated learning: A natural formula for connecting formal and informal learning. *The internet and higher education*, 15(1), 3-8.
- Denscombe, M. (2010). *The good research guide: For small-scale social research projects*. Berkshire: McGraw-Hill Education.
- Dickinson, L. (1987). *Self-instruction in language learning*. Cambridge: Cambridge University Press.
- Dina, N., & Haronb, S. (2013). Information Retrieval, Self Directed Learning And Academic Performance Among Facebook Users. *Journal Of Asian Behavioural Studies*. 3(11).
- Doherty, R. (2009). Engage with your talent through internal social networking. *Strategic HR Review*, 9(1), 39-40.
- Donlan, L. (2014). Exploring the views of students on the use of Facebook in university teaching and learning. *Journal of Further and Higher Education*, 38(4), 572-588.
- Drever, E. (2003). *Using Semi-Structured Interviews in Small-Scale Research. A Teacher's Guide*. Glasgow: ERIC Publication.
- Duggan, M., & Brenner, J. (2013). *The demographics of social media users, 2012* (Vol. 14): Pew Research Center's Internet & American Life Project Washington, DC.
- Dyrby, S., & Jensen, T. (2012). *Exploring affordances of social media use in election campaigns: What political parties want to facilitate, project and create*. Paper presented at the Pre-ICIS Workshop.
- Dyrbye, L., Cumyn, A., Day, H., & Heflin, M. (2009). A qualitative study of physicians' experiences with online learning in a masters degree program: Benefits, challenges, and proposed solutions. *Medical Teacher*, 31(2), e40-e46.
- Ebner, M., Lienhardt, C., Rohs, M., & Meyer, I. (2010). Microblogs in Higher Education—A chance to facilitate informal and process-oriented learning? *Computers & Education*, 55(1), 92-100.
- Echo360. (2011). the Student View of Blended Learning. Retrieved 30/7/2017 from:
<http://www.ecsu.edu/academics/offices/distanceeducation/docs/studentViewBlendedLearning.pdf>.
- Education, M. o. (2016). Objectives. Retrieved 22-01, 2016, from
<http://www.moe.gov.sa/ar/about/Pages/Goals.aspx/>
- E-learning, T. n. c. f. (2006). *E-learning and distance learning*. Paper presented at the International Exhibition and Conference on Higher Education kingdom of Saudi Arabia
- Elliott, H. (1997). The use of diaries in sociological research on health experience. *Sociological Research Online*, 2(2), 1-11.
- Ellison, N. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer Mediated Communication*, 13(1), 210-230.

- Elvers, G., Polzella, D., & Graetz, K. (2003). Procrastination in online courses: Performance and attitudinal differences. *Teaching of Psychology*, 30(2), 159-162.
- Esterberg, K. (2002). *Qualitative methods in social research*. United States of America. Boston: McGraw-Hill.
- Fagerlund, T. (2012). *Learning and using English and Swedish beyond the classroom: Activity systems of six upper secondary school students*. (Master's thesis), University of Jyväskylä
- Falahah., R. (2012). Study of social networking usage in higher education environment. *Procedia-Social and Behavioral Sciences*, 67, 156-166.
- Fielding, N., & Fielding, J. (1986). *Linking data* (Vol. 4). USA: Sage Publications.
- Fischer, G., & Sugimoto, M. (2006). Supporting self-directed learners and learning communities with sociotechnical environments. *Research and Practice in Technology Enhanced Learning*, 1(01), 31-64.
- Flick, U. (2006). *An introduction to qualitative research*. London Sage Publications.
- Freeman, I., & Hasnaoui, A. (2010). *Information and communication technologies (ICT): A tool to implement and drive corporate social responsibility* Paper presented at the Congrès Association Information et Management.
- Freeman, I., & Hasnaoui, A. (2010). Information and communication technologies (ICT): A tool to implement and drive corporate social responsibility (CSR). Retrieved 6/7/2017, from <https://hal.archives-ouvertes.fr/hal-00495968/document>. *Congres Association Information et Management*.
- Fricker, R., & Schonlau, M. (2002). Advantages and disadvantages of Internet research surveys: Evidence from the literature. *Field methods*, 14(4), 347-367.
- Frith, H., & Gleeson, K. (2004). Clothing and embodiment: men managing body image and using thematic analysis in psychology. *Psychol. Men Masc*, 5, 40-48.
- Garcia, I., Escofet, A., & Gros, B. (2013). Students' attitude towards ICT learning uses: A comparison between digital learners in blended and virtual universities. *European Journal of Open, Distance and E-learning*, 16(2).
- Garrison, R. (1997). Self-directed learning: Toward a comprehensive model. *Adult education quarterly*, 48(1), 18-33.
- Gaskill, P., & Woolfolk, H. (2002). Self-efficacy and self-regulated learning: The dynamic duo in school performance. *Improving academic achievement: Impact of psychological factors on education*, 185-208.
- Gaver, W. (1991). *Technology affordances*. Paper presented at the Proceedings of the SIGCHI conference on Human factors in computing systems.
- Gibbons, M. (2002). *The self-directed learning handbook: Challenging adolescent students to excel*. New York: Jossey-Bass.
- Gibson, J. (1986). *The ecological approach to visual perception*. New York: Psychology Press.
- Gillet, D., Law, E., & Chatterjee, A. (2010). *Personal learning environments in a global higher engineering education Web 2.0 realm*. Paper presented

- at the Education Engineering (EDUCON).
- Ginger, J. (2008). *The Facebook Project-Performance and Construction of Digital Identity*. Master's Thesis University of Illinois at Urbana
- Godwin-Jones, R. (2011). Emerging Technologies Mobile apps for language learning. *Learning and Language Technology*, 15, 2
- Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The qualitative report*, 8(4), 597-606.
- Goldman, S., Booker, A., & McDermott, M. (2008). Mixing the digital, social, and cultural: Learning, identity, and agency in youth participation. *Youth, identity, and digital media*, 185-206.
- Gomm, R., Hammersley, M., & Foster, P. (2000). *Case study method: Key issues, key texts*. London: Sage Publications.
- Graneheim, U., & Lundman, B. (2004). Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse education today*, 24(2), 105-112.
- Granovetter, M. (1983). The strength of weak ties: A network theory revisited. *Sociological theory*, 201-233.
- Green, E., Deschamps, J.-C., & Paez, D. (2005). Variation of individualism and collectivism within and between 20 countries: A typological analysis. *Journal of cross-cultural psychology*, 36(3), 321-339.
- Grix, J. (2004). *The foundations of research*. USA: Palgrave Macmillan.
- Grosseck, G., & Holotescu, C. (2008). *Can we use Twitter for educational activities*. Paper presented at the 4th international scientific conference, eLearning and software for education, Bucharest, Romania.
- Groves, R. (1989). *Survey errors and survey costs*. Canada: Wiley-Interscience.
- Guba, E. (1990). *The Paradigm Dialog*. Newbury Park, CA: Sage Publications.
- Guba, E. G. (1981). Criteria for assessing the trustworthiness of naturalistic inquiries. *Educational Technology research and development*, 29(2), 75-91.
- Guri-Rosenblit, S. (2005). 'Distance education' and 'e-learning': Not the same thing. *Higher education*, 49(4), 467-493.
- Gyambrah, M. (2007). *E-Learning Technologies and Its Application in Higher Education: A Descriptive Comparison of Germany, United Kingdom and United States*. (PHD), International Medical University Malaysia.
- Habash, M. (2015). The Saudi user on social networks. Retrieved 7/7/2017, from <http://www.tech-wd.com/wd/2015/09/08/social-network-in-ksa/>. Kingdom of Saudi Arabia Technology World
- Hacker, D., Dunlosky, J., & Graesser, A. (1998). *Metacognition in educational theory and practice*. New York: Routledge.
- Hague, C., & Logan, A. (2009). A review of the current landscape of adult informal learning using digital technologies. Retrieved 11/5/2017, from <https://www.nfer.ac.uk/publications/FUTL23>. *Educational Research*.
- Haines, K. (2015). Learning to identify and actualize affordances in a new tool. Retrieved 2/7/2017, from <http://unitec.researchbank.ac.nz/handle/10652/3208>. 19(1), 165-180.
- Hammond, M. (2010). What is an affordance and can it help us understand the use of ICT in education? *Education and Information Technologies*, 15(3), 205-217.
- Harrison, R. (1978). How to design and conduct self-directed learning

- experiences. *Group & Organization Studies*, 3(2), 149-167.
- Hatch, A. (2002). *Doing qualitative research in education settings*. New York: Suny Press.
- Heatley, E., & Lattimer, T. (2013). Using social media to enhance student learning. *Techniques*, 88(1), 8-9.
- Heiberger, G., & Harper, R. (2008). Have you Facebooked Astin lately? Using technology to increase student involvement. *New directions for student services*, 2008(124), 19-35.
- Hewitt, A., & Forte, A. (2006). *Crossing boundaries: Identity management and student/faculty relationships on the Facebook*. Paper presented at the Georgia Institute of Technology, Banff, Alberta.
- Hiemstra, R., & Brockett, R. (2012). *Reframing the meaning of self-directed learning: An updated model*. Paper presented at the Adult Education Research Conference, The United States of America
- Higgins, S., Xiao, Z., & Katsipatakis, M. (2012). The impact of digital technology on learning: A summary for the education endowment foundation *Durham, UK: Education Endowment Foundation and Durham University*.
- Hinton, P. R., McMurray, I., & Brownlow, C. (2004). *SPSS explained*. London: Routledge.
- Holland, D. (2001). *Identity and agency in cultural worlds*. London: Harvard University Press.
- Information, T. M. o. C. (2006). The Saudi Arabia Information Resource. Retrieved 22/7/2017, from <http://www.saudinf.com/>.
- Initiative, E. (2009). The seven things you should know about... Personal Learning Environments. Retrieved 9/2/2017, from <https://www.educause.edu/ir/library/pdf/ELI7049.pdf>
- Jaffer, S., Ng'ambi, D., & Czerniewicz, L. (2007). The role of ICTs in higher education in South Africa: One strategy for addressing teaching and learning challenges. *International journal of Education and Development using ICT*, 3(4).
- Jahnke, I. (2013). Informal Learning via Social Media: Preparing for Didactical Designs. Retrieved 4/4/2017, from <http://www.diva-portal.org/smash/get/diva2:684461/FULLTEXT01.pdf>.
- Janesick, V. J. (1998). *"Stretching" exercises for qualitative researchers*. Los Angeles: Sage Publications.
- Java, A., Song, X., Finin, T., & Tseng, B. (2007). *Why we twitter: understanding microblogging usage and communities*. Paper presented at the Knowledge Discovery and Data Mining, San Jose, California.
- Jefferies, A. (2011). *Blended Learning: Undergraduate Students' Experiences of Using Technology to Support Their Learning*. (PHD), University of Hertfordshire
- Jenkins, H., Purushotma, R., Weigel, M., Clinton, K., & Robison, A. (2009). *Confronting the challenges of participatory culture: Media education for the 21st century*. Cambridge, Massachusetts & London: Mit Press.
- Jing, H. (2006). Learner resistance in metacognition training? An exploration of mismatches between learner and teacher agendas. *Language Teaching Research*, 10(1), 95-117.
- Johnson, B., & Christensen, L. (2010). *Educational research: Quantitative, qualitative, and mixed approaches*. Los Angeles: Sage Publications.
- Jones, S. (2008). Professional Development Through Individual Diary Writing.

- Retrieved 26/12/16, from
<https://www.birmingham.ac.uk/Documents/college-artslaw/cels/essays/language/teaching/JonesLTM.pdf>.
- Judger, N. (2016). The thematic analysis of interview data: An approach used to examine the influence of the market on curricular provision in Mongolian higher education institutions. Retrieved 5/6/2017, from <http://hnp.education.leeds.ac.uk/wp-content/uploads/sites/131/2016/02/HPP2016-3-Jugder.pdf>.
- Junco, R., Heiberger, G., & Loken, E. (2011). The effect of Twitter on college student engagement and grades. *Journal of computer assisted learning*, 27(2), 119-132.
- Kaplan, B., & Maxwell, J. A. (2005). Qualitative research methods for evaluating computer information systems *Evaluating the organizational impact of healthcare information systems* (pp. 30-55). New York: Springer.
- Kasworm, C. (1988). *Part-time credit learners as full-time workers: The role of selfdirected learning in their lives*. Paper presented at the The Annual conference of the American Association for Adult and Continuing Education, Tulsa, OK. .
- Kear, K. (2010). *Social presence in online learning communities*. Paper presented at the Proceedings of the 7th International Conference on Networked Learning, The United Kingdom
- Khashman, N. (2013). *The Facebook Revolution: An Exploratory Analysis of Public Pages during the Arab Political Unrest*. Paper presented at the Proceedings of the Annual Conference of CAIS/Actes du congrès annuel de l'ACSI.
- Kim, R., Olfman, L., Ryan, T., & Eryilmaz, E. (2014). Leveraging a personalized system to improve self-directed learning in online educational environments. *Computers & Education*, 70, 150-160.
- Kinaanath, M. (2013). *The use of information and communication technology in teaching and learning within higher education sector of a small island developing state: The case of the Maldives*. (PHD), Victoria University of Wellington Wellington, New Zealand
- King, K. (2002). Identifying success in online teacher education and professional development. *The internet and higher education*, 5(3), 231-246.
- King, N., Cassell, C., & Symon, G. (1994). Qualitative methods in organizational research: A practical guide. *The Qualitative Research Interview*, 17.
- Kirschner, P. (2002). Can we support CCSL? Educational, social and technological affordances for learning. Retrieved 9/7/2017, from [file:///C:/Users/Hind/AppData/Local/Packages/Microsoft.MicrosoftEdge_8wekyb3d8bbwe/TempState/Downloads/kirschner_02_threeworldcscl%20\(1\).pdf](file:///C:/Users/Hind/AppData/Local/Packages/Microsoft.MicrosoftEdge_8wekyb3d8bbwe/TempState/Downloads/kirschner_02_threeworldcscl%20(1).pdf).
- Knowles, M. (1989). Everything you wanted to know from Malcolm Knowles (and weren't afraid to ask). *Training*, 26(8), 45-50.
- Koch, T. (2006). Establishing rigour in qualitative research: the decision trail. *Journal of advanced nursing*, 53(1), 91-100.
- Kreijns, K., Kirschner, P. A., Jochems, W., & Van Buuren, H. (2007). Measuring perceived sociability of computer-supported collaborative learning environments. *Computers & Education*, 49(2), 176-192.
- Krishna, V. (2007). Universities and emerging national innovation systems.

South Asian (Indian) Experience.

- Kruger, J., Epley, N., Parker, J., & Ng, Z.-W. (2005). Egocentrism over e-mail: Can we communicate as well as we think? *Journal of personality and social psychology*, 89(6), 925.
- Kutbi, A. (2005). *How undergraduate female students in the kingdom of Saudi Arabia perceive social media as a learning tool: An exploratory study*. (PhD), University of Windsor.
- Lacey, A., & Luff, D. (2007). *Qualitative data analysis*. Sheffield: The NIHR RDS for the Yorkshire & the Humber.
- Lai, C. (2015). Modeling teachers' influence on learners' self-directed use of technology for language learning outside the classroom. *Computers & Education*, 82, 74-83.
- Lewis, K., & Massey, C. (2004). *Help or hindrance? Participant diaries as a qualitative data collection tool*. Paper presented at the Proceedings of the 17th Annual Small Enterprise Association of Australia and New Zealand Conference, Brisbane.
- Lincoln, Y., & Guba, E. (1982). *Establishing dependability and confirmability in naturalistic inquiry through an audit*. Paper presented at the The Annual Meeting of the American Educational Research Association New York.
- Lincoln, Y., & Guba, E. (1985). *Naturalistic inquiry* (Vol. 75). California: Sage Publications.
- Lucas, M., & Moreira, A. (2009). *Bridging formal and informal learning—A case study on students' perceptions of the use of social networking tools*. Paper presented at the European Conference on Technology Enhanced Learning, Springer, Berlin, Heidelberg.
- Macharia, J., & Pelser, T. (2014). Key factors that influence the diffusion and infusion of information and communication technologies in Kenyan higher education. *Studies in Higher Education*, 39(4), 695-709.
- Madge, C., Meek, J., Wellens, J., & Hooley, T. (2009). Facebook, social integration and informal learning at university: 'It is more for socialising and talking to friends about work than for actually doing work'. *Learning, Media and Technology*, 34(2), 141-155.
- Manfreda, K., Bosnjak, M., Berzelak, J., Haas, I., & Vehovar, V. (2008). Web surveys versus other survey modes: A meta-analysis comparing response rates. *Journal of the Market Research Society*, 50(1), 79.
- Martindale, T., & Dowdy, M. (2010). Personal learning environments. *Emerging technologies in distance education*, 177-193.
- Mbodila, M., Jones, T., & Muhandji, K. (2013). Integration of ICT in education: Key challenges. *International Journal of Emerging Technology and Advanced Engineering*, 3(11), 515-520.
- Merriam, S. (1998). *Qualitative research and case study applications in education. Revised and expanded from "case study research in education"*. San Francisco: Jossey Bass.
- Meyer, W. (2010). *Independent learning: a literature review and a new project*. Paper presented at the British Educational Research Association Annual Conference, University of Warwick.
- Millar, R. (1991). Why is science hard to learn? *Journal of computer assisted learning*, 7(2), 66-74.
- Miller, R., & Brewer, J. (2003). *The AZ of social research: A dictionary of key social science research concepts*. London: Sage Publications.

- Moore, F. M. (2008). Agency, identity, and social justice education: Preservice teachers' thoughts on becoming agents of change in urban elementary science classrooms. *Research in Science Education*, 38(5), 589.
- Mossman, A. (2012). *Personal learning networks: exploring the information needs of educators*. Master's Thesis, University of Central Missouri.
- Naaman, M., Boase, J., & Lai, C.-H. (2010). *Is it really about me?: message content in social awareness streams*. Paper presented at the Computer Supported Cooperative Work, New York
- Nie, N. (2001). Sociability, interpersonal relations, and the Internet: Reconciling conflicting findings. *American behavioral scientist*, 45(3), 420-435.
- Norman, D. (1995). *The psychopathology of everyday things*. USA: Elsevier.
- Norušis, M. (1990). *SPSS base system user's guide*. Michigan: SPSS Inc.
- Okoro, E. (2012). Integrating social media technologies in higher education: Costs-benefits analysis. *Journal of International Education Research*, 8(3), 255.
- Oppenheim, A. (1992). *Questionnaire design, interviewing and attitude measurement*. London: Pinter Publishers.
- Ornek, F., Robinson, W. R., & Haugan, M. P. (2008). What Makes Physics Difficult? *International Journal of Environmental and Science Education*, 3(1), 30-34.
- Oyaid, A. (2009). *Education policy in Saudi Arabia and its relation to secondary school teachers' ICT use, perceptions, and views of the future of ICT in education*. (PHD), University of Exeter
- Pallant, J. (2010). *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS for Windows*. Maidenhead: Open University Press.
- Park, J. (2011). Design education online: Learning delivery and evaluation. *International Journal of Art & Design Education*, 30(2), 176-187.
- Park, J. & Kwon, D. (2004). Employees' perceived work environment and self-directed learning readiness in Korean companies. *Human Resource Development International*, 7(3), 333-350.
- Parvez, A., & Hussain, M. (2013). Use of web 2.0 in Saudi Arabia universities. *International Journal of Information Dissemination and Technology*, 3(3), 158.
- Patton, M. (1990). *Qualitative evaluation and research methods*. Newbury Park: SAGE.
- Pinsonneault, A., & Kraemer, K. (1993). Survey research methodology in management information systems: an assessment. *Journal of management information systems*, 10(2), 75-105.
- Prescott, J. (2014). Teaching style and attitudes towards Facebook as an educational tool. *Active Learning in Higher Education*, 15(2), 117-128.
- Pring, R. (2000). *The philosophy of education*. London: Continuum.
- Protalinski, E. (2014). Twitter passes 241m monthly active users, 184m mobile users, and sees 75% of advertising revenue from mobile. Retrieved 18/12/2017, from <https://thenextweb.com/twitter/2014/02/05/twitter-passes-million-monthly-active-users-x-million-mobile-users/>.
- Puddington, A. (2013). Freedom in the world 2013: Democratic breakthroughs in the balance. *Washington, DC: Freedom House*.
- Punnoose, A. (2012). Determinants of intention to use eLearning based on the technology acceptance model. *Journal of Information Technology Education: Research*, 11(1), 301-337.

- Putnam, R. D. (1995). Bowling alone: America's declining social capital. *Journal of democracy*, 6(1), 65-78.
- Radnor, H. (2001). *Researching your professional practice: Doing interpretive research*. Buckingham: Open University Press.
- Rajagopal, K., Verjans, S., Costa, C., & Sloep, P. (2012). People in personal learning networks: Analysing their characteristics and identifying suitable tools. Retrieved 7/9/2017, from <http://dspace.ou.nl/handle/1820/4224>.
- Ranjit, K. (2011). *Research Methodology: a step-by-step guide for beginners*. London: Sage Publications.
- Raoof, J., Zaman, H., Ahmad, A., & Al-Qaraghuli, A. (2013). Using social network systems as a tool for political change. *International Journal of Physical Sciences*, 8(21), 1143-1148.
- Reinders, H. (2010). Towards a classroom pedagogy for learner autonomy: A framework of independent language learning skills. *Australian Journal of Teacher Education*, 35(5), 40-55.
- Reinders, H. (2014). *Personal Learning Environments for Supporting Out-of-Class Language Learning*. Paper presented at the English teaching forum, New Zealand.
- Rhoades, E., Irani, T., Telg, R., & Myers, B. (2008). Internet as an information source: Attitudes and usage of students enrolled in a college of agriculture course. *Journal of Agricultural Education*, 49(2), 108-117.
- Robertson, J. (2011). The educational affordances of blogs for self-directed learning. *Computers & Education*, 57(2), 1628-1644.
- Robinson, C. (2002). *Real world research: a resource for social scientists and practitioner-researchers*. Oxford: Blackwell.
- Robinson, R. (2009). *The effect of individual differences on training process variables in a multistage computer-based training context*. (PHD), University of Akron.
- Roblyer, M., McDaniel, M., Webb, M., Herman, J., & Witty, J. (2010). Findings on Facebook in higher education: A comparison of college faculty and student uses and perceptions of social networking sites. *The internet and higher education*, 13(3), 134-140.
- Robson, C. (2002). *Real World Research: A Resource for Social Scientists and Practitioner-Researchers*. Oxford: Blackwell.
- Russell, C. (2008). *E-learning adoption in a campus university as a complex adaptive system: mapping lecturer strategies*. (PHD), University of Leicester.
- Ryan, R., & Deci, E. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, 55(1), 68-78.
- Saeed, N., & Sinnappan, S. (2011). *Adoption of Twitter in higher education—a pilot study*. Paper presented at the Proceedings ascilite Hobart, Australia.
- Saks, K., & Leijen, A. (2014). Distinguishing self-directed and self-regulated learning and measuring them in the e-learning context. *Procedia-Social and Behavioral Sciences*, 112, 190-198.
- Sangra, A., & Gonzalez-Sanmamed, M. (2010). The role of information and communication technologies in improving teaching and learning processes in primary and secondary schools. *Research in Learning Technology*, 18(3).

- Sargeant, J. (2012). Qualitative research part II: participants, analysis, and quality assurance. *Journal of Graduate Medical Education*, 4(1), 1-3.
- Sarkar, S. (2012). The role of information and communication technology (ICT) in higher education for the 21st century. *Science*, 1(1), 30-41.
- Schrum, L., & Hong, S. (2002). Dimensions and strategies for online success: Voices from experienced educators. *Journal of Asynchronous Learning Networks*, 6(1), 57-67.
- Schunk, D. (1989). Social cognitive theory and self-regulated learning *Self-regulated learning and academic achievement* (pp. 83-110). New York: Springer.
- Sefton-Green, J. (2004). Literature review in informal learning with technology outside school. Bristol: Futurelab.
- Selwyn, N. (2007). *Web 2.0 applications as alternative environments for informal learning-a critical review*. Paper presented at the CERI-KERIS International Expert Meeting on ICT and Educational Performance
- Selwyn, N. (2008). An investigation of differences in undergraduates' academic use of the internet. *Active Learning in Higher Education*, 9(1), 11-22.
- Selwyn, N. (2009). The digital native—myth and reality. Retrieved 8/7/2017, from <https://www.emeraldinsight.com/doi/pdfplus/10.1108/00012530910973776#.61,364-379>.
- Sharaf, G., Musa, M., & Rahman, A. (2012). An Examination of Social Networking Sites Usage among Muslims Student in Islamic Perspectives. *International Journal of Engineering and Advanced Technology (IJEAT)*, 1(4), 273-278.
- Shenton, A. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for information*, 22(2), 63-75.
- Shirky, C. (2009). *Here comes everybody: How change happens when people come together*. London: Penguin UK.
- Silverman, D. (2001). *Interpreting qualitative data: Methods for analyzing talk, text and interaction*. London: Sage publications
- Silverman, D. (2010). *Doing qualitative research: A practical handbook*. London: Sage Publications.
- Simons, R.-J. (2000). Towards a constructivistic theory of self-directed learning. *Self-learning*, 1-12.
- Singh, K., & Gill, M. (2015). Role and users' approach to social networking sites (SNSs): a study of universities of North India. *The Electronic Library*, 33(1), 19-34.
- Sisley, M. (2013). *Self-directed learning in the age of digital networks: The learning patterns of knowledge workers in the knowledge economy*. Master's Thesis, University of Concordia.
- Skiff, D., & Beckendorf, P. (2009). Self-directed learning: a key ingredient for comprehensive training curriculum. *Pipeline and gas journal*, 236, 76-77.
- Smith, R., & Haverkamp, K. (1977). Toward a theory of learning how to learn. *Adult Education*, 28(1), 3-21.
- Sokrat, H., Tamani, S., Moutaabbid, M., & Radid, M. (2014). Difficulties of students from the faculty of science with regard to understanding the concepts of chemical thermodynamics. *Procedia-Social and Behavioral Sciences*, 116, 368-372.
- Song, D., & Lee, J. (2014). Has Web 2.0 revitalized informal learning? The

- relationship between Web 2.0 and informal learning. *Journal of computer assisted learning*, 30(6), 511-533.
- Song, L., & Hill, J. (2007). A conceptual model for understanding self-directed learning in online environments. *Journal of Interactive Online Learning*, 6(1), 27-42.
- Song, L., Singleton, E., Hill, J., & Koh, M. (2004). Improving online learning: Student perceptions of useful and challenging characteristics. *The internet and higher education*, 7(1), 59-70.
- Stanciu, A., Mihai, F., & Aleca, O. (2012). Social networking as an alternative environment for education. *Accounting and Management Information Systems*, 11(1), 56.
- Steinfeld, C., Ellison, N., & Lampe, C. (2008). Social capital, self-esteem, and use of online social network sites: A longitudinal analysis. *Journal of Applied Developmental Psychology*, 29(6), 434-445.
- Stewart, R. A. (2007). Evaluating the self-directed learning readiness of engineering undergraduates: a necessary precursor to project-based learning. *World Transactions on Engineering and Technology Education*, 6(1), 59-62.
- Symmons, J. (2013). *An Exploration of Professors' Use of Twitter in Higher Education*. Master's Thesis, University of Brock
- Sze-Yeng, F., & Hussain, R. (2010). Self-directed learning in a socioconstructivist learning environment. *Procedia-Social and Behavioral Sciences*, 9, 1913-1917.
- Tan, S., Divaharan, S., Tan, L., & Cheah, H. (2011). *Self-directed learning with ICT: Theory, practice and assessment*. Singapore: Ministry of Education
- Tarantino, K., McDonough, J., & Hua, M. (2013). Effects of student engagement with social media on student learning: A review of literature. *The Journal of Technology in Student Affairs*, 1(8), 1-8.
- Tess, P. (2013). The role of social media in higher education classes (real and virtual)—A literature review. *Computers in Human Behavior*, 29(5), A60-A68.
- Thawabieh, A., & Rfou, M. (2015). The Effect of Facebook upon Self Directed Learning. *American International Journal of Contemporary Research*, 5, 39-44.
- Thomas, L., Jones, R., & Ottaway, J. (2015). Effective practice in the design of directed independent learning opportunities. Retrieved 2/3/2018, from <http://www.qaa.ac.uk/en/Publications/Documents/Effective-practice-in-the-design-of-directed-independent-learning-opportunities.pdf>. *The Quality Assurance Agency for Higher Education*.
- Tobin, G., & Begley, C. (2004). Methodological rigour within a qualitative framework. *Journal of advanced nursing*, 48(4), 388-396.
- Toms, E., & Duff, W. (2002). "I spent 1 ½ hours sifting through one large box....": Diaries as information behavior of the archives user: Lessons learned. *Journal of the American Society for Information Science and Technology*, 53(14), 1232-1238.
- Toro, U., & Joshi, M. (2012). ICT in higher education: Review of literature from the period 2004-2011. *International Journal of Innovation, Management and Technology*, 3(1), 20-23.
- Tough, A. (1979). *The adult's learning projects. A fresh approach to theory and practice in adult learning*. Canada: Pfeiffer & Co.

- Valjataga, T., & Fiedler, S. (2009). Supporting students to self-direct intentional learning projects with social media. *Educational Technology & Society*, 12(3), 58-69.
- Vallance, R., & Lee, M.-H. (2005). QSR NVivo as an aid towards analytic rigour when researching in non English languages and cultures. Paper presented at the The 6th International Strategies in Qualitative Research conference, University of Durham
- Villano, M. (2007). Social revolution. *Education Resources Information Center* 20(5), 40-54.
- Wallen, N., & Fraenkel, J. (2001). *Educational research: A guide to the process*. New Jersey: Lawrence Erlbaum Associates Publishers.
- Wang, Q., & Woo, H. (2007). Comparing asynchronous online discussions and face-to-face discussions in a classroom setting. *British Journal of Educational Technology*, 38(2), 272-286.
- Wang, Q., Woo, H., & Quek, C. (2012). Exploring the affordances of Facebook for teaching and learning. *International Review of Contemporary Learning Research*, 1(1), 23-31.
- Wang, R., Scown, P., Urquhart, C., & Hardman, J. (2014). Tapping the educational potential of Facebook: Guidelines for use in higher education. *Education and Information Technologies*, 19(1), 21-39.
- Warburton, S., & Hatzipanagos, S. (2013). Agency and identity in social Media. In C. Jillianne (Ed.), *Digital identity and social media*. USA: Information Science Reference.
- Wegerif, R. (2002). Literature review in thinking skills, technology and learning. London: Open University.
- Wellington, J. (2000). *Educational research: Contemporary issues and practical approaches*. London: Continuum.
- Wellman, B., Haase, A. Q., Witte, J., & Hampton, K. (2001). Does the internet increase, decrease, or supplement social capital? Social networks, participation, and community commitment. *American Behavioral Scientist*, 45(3), 436-455.
- Wheeler, L., & Reis, H. (1991). Self-recording of everyday life events: Origins, types, and uses. *Journal of personality*, 59(3), 339-354.
- Wilcox, S. (1996). Fostering self-directed learning in the university setting. *Studies in Higher Education*, 21(2), 165-176.
- Williams, D., Coles, L., Richardson, A., Wilson, K., & Tuson, J. (2000). Integrating information and communications technology in professional practice: an analysis of teachers' needs based on a survey of primary and secondary teachers in Scottish schools. *Journal of Information Technology for Teacher Education*, 9(2), 167-182.
- Wong, K.-T., Goh, P., & Rahmat, M. (2013). Understanding student teachers' behavioural intention to use technology: Technology acceptance model (TAM) validation and testing. *Education Resources Information Center*, 6(1), 89-104.
- Yin, R. (2003). *Case Study Research: Design and Methods*. California: Sage Publications.
- Yin, R. (2009). *Case Study Research: Design and Methods*. London: Sage Publications.
- Yin, R. (2010). *Qualitative research from start to finish*. New York: Guilford Publications.

- Yunus, M., Salehi, H., & Chenzi, C. (2012). Integrating social networking tools into ESL writing classroom: Strengths and weaknesses. *English Language Teaching*, 5(8), 42-48.
- Zahidi, M., & Binti, A. (2012). *Self-regulation in English language learning: Case studies of six Malaysian undergraduates*. (PHD), Victoria University of Wellington
- Zaidieh, A. (2012). The use of social networking in education: Challenges and opportunities. *World of Computer Science and Information Technology Journal (WCSIT)*, 2(1), 18-21.
- Zgheib, G., & Dabbagh, N. (2013). *Exploring perceptions of faculty and students' use of social media in higher education*. Paper presented at the 19th Annual Sloan Consortium-International Conference on Online Learning.
- Zhao, S. (2006). *Cyber-gathering places and online-embedded relationships*. Paper presented at the annual meetings of the eastern sociological society in Boston.
- Zimmerman, B. (1989). Models of self-regulated learning and academic achievement *Self-regulated learning and academic achievement*. New York: Springer.

10 Appendices

Appendix 1: Questionnaire first version

Self-Directed Learning (SDL) questionnaire.

A letter for the participants will be written.

1- Demographic information:

- Please complete your contact details (required)**

Name	
Email	
Gender	
Subject	
Year of study	

- How do you describe your computer skills level?**

Beginner intermediate advanced

- How did you obtain skills in using SNSs?**

Attended in-university training course

Attended private training course

Assisted by lecturers, colleagues or family members

By trial and error

Other.....

- Do you have good access to SNSs at home?** Yes No

- How do you describe your level of experience with SNSs?**

Beginner intermediate advanced

- Do you use social networking sites for personal learning?** Yes No

2- Information about Self-directed learning factors:

Please read the following statements and indicate the extent to which you agree or disagree with them by ticking the relevant box.

SD = strongly disagree

D = disagree

N = neither agree or disagree

A = agree

SA = strongly agree

Personal factors		SD	D	N	A	SA
1	I believe in the importance of SNSs as tools for personal learning.					
2	I always effectively take responsibility for my personal learning through using SNSs.					

3	I am confident in my ability to motivate my personal learning through using SNSs.					
4	SNSs motivate me to develop personal learning.					
5	I am very confident in my ability to independently prioritize my personal learning goals through using SNSs.					
6	I am interested in using SNSs to develop personal learning.					
7	I am very successful at prioritizing my personal learning goals through SNSs.					
8	I always assume personal responsibility for my personal learning.					
9	Using the social networks to connect with others in order to achieve personal learning is a good idea.					
10	Working with the social networks for personal learning makes the learning more interesting.					
11	I am negative toward using the social networks for personal learning.					
12	I have the necessary skills for using the social networks.					
13	In order to be successful in my university study, it is necessary to use social networks to improve my learning.					
14	SNSs makes personal learning environment easier.					
15	Using SNSs to develop personal learning can save time and effort.					
16	I have the necessary skills for using SNSs.					
17	I feel confident finding information when I use SNSs for personal learning.					

Learning process		SD	D	N	A	SA
1	I feel that I have a good control over my personal learning through SNSs.					
2	I feel confident in organizing my personal learning through SNSs.					
3	I know how to find resources that support my personal learning in the SNSs.					
4	I find it easy to go through the stages of personal learning using SNSs.					

5	Finding the appropriate learning groups in the SNSs is an easy task.					
6	I can effectively communicate with others in the SNSs to develop my personal learning.					
7	I would rather take the initiative to learn new things through using SNSs rather than waiting for the instructor to foster new learning.					
8	I can plan for my personal learning through SNSs independently.					
9	I often use materials I've found on my own from SNSs to help me in a course.					
10	I am very convinced I have the ability to take personal control of my personal learning through using SNSs					
11	I am usually aware of the progress of my achievement when studying personally through SNSs					
12	If I'm not doing as well as I would like in a course, I always independently improve my personal learning through using SNSs to make the changes necessary.					
13	Even after a course is over, I continue spending time to personal learning about the topic through using SNSs					
14	I often collect additional information about interesting topics after the course has ended through using SNSs					
15	I always effectively organize my personal learning time.					
16	I always feel in control of my personal learning process.					
17	The actual process of using the social networks for personal learning is pleasant					
18	I can evaluate my own performance through SNSs to develop my personal learning.					
19	I can monitor my learning progress.					

Contextual factors		SD	D	N	A	SA
1	If there is something I don't understand in a class, I always use SNSs to learn it on my own.					
2	Without the lecturers' help, I always have a problem knowing what changes I need to make to improve my personal learning.					
3	Online context such as SNSs enhances my responsibility towards personal learning.					

4	It is easy to find resources that are useful for my personal learning.					
5	I seek help from my lecturer to develop my personal learning.					
6	Available online resources in SNSs are useful for my personal learning.					
7	I have communication groups in SNSs that provides me with what I need to learn by myself.					
8	I communicate with my colleagues at universities through SNSs to improve my personal learning.					
9	I communicate with others through SNSs to improve our personal learning.					
10	I always depend on SNSs to make sense of things I don't understand.					
11	My interaction with others helps me plan for further learning					
12	My lecturer provides me with support to develop my personal learning through SNS					
13	My colleagues provide me with support to develop my personal learning through SNS					
14	I easily find learning groups that support my personal learning in the SNSs.					
15	Information that I find the SNSs is reliable.					
16	People I deal with in the SNSs are professionals that I can rely on.					

Learning outcomes		SD	D	N	A	SA
1	With the help of SNSs for personal learning, I can feel the improvement in my course achievement.					
2	Using SNSs for personal learning has significantly improved my course results.					
3	Using SNSs for personal learning is more important from the formal course content. (might be personal)					
4	Using SNSs for personal learning has increased my confidence about my knowledge.					

Appendix 2: Questionnaire final version

Self-Directed Learning (SDL) questionnaire

Dear participants,

Thank you for your participation in this research to complete this questionnaire which aims to collect data about the use of social networking sites by the university students to promote personal learning and the factors that influence their use. As a PHD student in education at the University of Exeter in the United Kingdom, this questionnaire's data will be used in my study entitled: The use of Social Networking Sites (SNS) to promote personal learning by Saudi Arabian university students. Your responses and personal information will be kept completely CONFIDENTIAL and it will not affect your study. All data from this questionnaire will be used for this research aim only and it will be deleted after completing the study.

Hind Alqirnas
PhD student

University of Exeter

3- Demographic information:

- **Please complete your contact details**

Name	
Age	
Email	
Subject	
Year of study	

4- General information about the use of social networks:

- **Do you have any social network account?** Yes no
- If yes, please complete the following table by ticking the relevant box:

Indicate which of the following social networking sites you use	Yes	No	How frequently do you check these sites				
			More than once a day	Daily	Weekly	Monthly	Less than once a month
Facebook							
Twitter							
Blog							
Flicker							
Myspace							

Instagram							
WhatsApp							
Snapchat							
Others							

- **If you use these sites, for what reason do you use them? (Tick the relevant box – you can choose more than one box)**

Social networking sites	Reasons of using social networking sites			
	Educational reasons	leisure	Communication	others
Facebook				
Twitter				
Blog				
Flicker				
Myspace				
Instagram				
WhatsApp				
Snap chat				
others				

- **Thinking about your ability to use technologies such as computers and smart phones, how would you describe your level of skills?**

Beginner (Only basic skills)

Intermediate (Quite good skills)

Advanced (Very good skills)

- **How did you obtain skills in using social networking sites?**

Attended in-university training course

Attended private training course

Assisted by lecturers or colleagues

Assisted by family members

By myself such as trial and error

Other.....

- **Do you have good access to social networking sites at home?** Yes
No
- **Thinking about your ability to use social networking sites, how would you describe your level of experience?**

Beginner (Only basic skills)

Intermediate (Quite good skills)

Advanced (Very good skills)

- **Do you use social networking sites for personal learning?** Yes No
- **If yes, can you explain what do you mean by personal learning? (Tick all options that apply)**

Finding information about the course

Contacting with experts and professional

Discussion with others about the course materials.

Doing exercises

Finding resources that related to the course

Seeking help for assignments

Others

5- Information about Self-directed learning:

Please read the following statements and indicate the extent to which you agree or disagree with them by ticking the relevant box.

SD = strongly disagree
D = disagree
N = neither agree or disagree
A = agree
SA = strongly agree

Self-directed learning		SD	D	N	A	SA
1	I always effectively take responsibility for my personal learning					
2	I do not feel confident in my ability to motivate my personal learning					
3	I always assume personal responsibility for my personal learning.					
4	I am very successful at prioritizing my personal learning goals					

5	I always feel in control of my personal learning process.					
6	I find it difficult to plan for my personal learning independently.					
7	I often collect additional information about interesting topics after the course has ended					
8	I always effectively organize my personal learning time.					
9	I am able to evaluate my personal learning level					
10	I can monitor my learning progress.					
11	It is easy to find resources that are useful for my personal learning.					
12	I seek help from others to develop my personal learning.					
13	My interaction with others helps me plan for further learning					

6- Information about using SNSs for self-directed learning:

Please read the following statements and indicate the extent to which you agree or disagree with them by ticking the relevant box.

SD = strongly disagree

D = disagree

N = neither agree or disagree

A = agree

SA = strongly agree

Personal factors		SD	D	N	A	SA
1	I believe in the importance of SNSs as tools for personal learning.					
2	I always effectively take responsibility for my personal learning through using SNSs.					
3	SNSs motivate me to develop personal learning.					
4	I am very confident in my ability to independently prioritize my personal learning goals through using SNSs.					

5	I am interested in using SNSs to develop personal learning.					
6	I am very successful at prioritizing my personal learning goals through SNSs.					
7	Using the social networks to connect with others in order to achieve personal learning is a good idea.					
8	Working with the social networks for personal learning makes the learning more interesting.					
9	I do not like using the social networks for personal learning.					
10	I have the necessary skills for using the social networks.					
11	In order to be successful in my university study, it is necessary to use social networks to improve my learning.					
12	SNSs makes personal learning environment easier.					
13	Using SNSs to develop personal learning can save time and effort.					
14	I feel confident finding information when I use SNSs for personal learning.					

Learning process		SD	D	N	A	SA
1	I feel that I have a good control over my personal learning through SNSs.					
2	I feel confident in organizing my personal learning through SNSs.					
3	I know how to find resources that support my personal learning in the SNSs.					
4	I find it easy to go through the stages of personal learning using SNSs.					
5	Finding the appropriate learning groups in the SNSs is an easy task.					
6	I can effectively communicate with others in the SNSs to develop my personal learning.					
7	I would rather take the initiative to learn new things through using SNSs rather than waiting for the instructor to foster new learning.					
8	I can plan for my personal learning through SNSs independently.					
9	I often use materials I've found on my own from SNSs to help me in a course.					

10	I am very convinced I have the ability to take personal control of my personal learning through using SNSs					
11	I am usually aware of the progress of my achievement when studying personally through SNSs					
12	If I'm not doing as well as I would like in a course, I always independently improve my personal learning through using SNSs to make the changes necessary.					
13	Even after a course is over, I continue spending time to personal learning about the topic through using SNSs					
14	I always effectively organize my personal learning time.					
15	The actual process of using the social networks for personal learning is pleasant					
16	I can evaluate my own performance through SNSs to develop my personal learning.					
17	I am able to be monitor for my learning progress through SNSs.					

Contextual factors		SD	D	N	A	SA
1	If there is something I don't understand in a class, I always use SNSs to learn it on my own.					
2	Without the lecturers' help, I always have a problem knowing what changes I need to make to improve my personal learning.					
3	SNSs enhances my responsibility towards personal learning.					
4	I seek help from my lecturer to develop my personal learning.					
5	Available online resources in SNSs are useful for my personal learning.					
6	I have communication groups in SNSs that provides me with what I need to learn by myself.					
7	I communicate with my colleagues at universities through SNSs to improve my personal learning.					
8	I communicate with others through SNSs to improve our personal learning.					
9	I always depend on SNSs to make sense of things I don't understand.					
10	My interaction with others through SNSs helps me plan for further learning					
11	My lecturer provides me with support to develop my personal learning through SNS					

12	My colleagues provide me with support to develop my personal learning through SNS					
13	I easily find learning groups that support my personal learning in the SNSs.					
14	Information that I find in the SNSs is reliable.					
15	People I deal with in the SNSs are professionals that I can rely on.					

(This section 'learning outcomes' is new that I introduced to the SDL questionnaire design, do you think it will provide useful data?)

Learning outcomes		SD	D	N	A	SA
1	With the help of SNSs for personal learning, I can feel the improvement in my course achievement.					
2	Using SNSs for personal learning has significantly improved my course results.					
3	Using SNSs for personal learning has increased my confidence about my knowledge.					

- **I will be conducting interviews and text diaries with students of Hail University to gain a deeper understanding of the use of social networking sites to promote personal learning. The interview will take short time and your participation will be appreciated and very important for my study. If you wish to participate, please write your email address and phone number in the space below**

Thank you for your participation

Appendix 3: Arabic questionnaire final version

استبيان

عزيزتي طالبة جامعة حائل، شكراً لاشتراكك في تعبئة هذا الاستبيان الذي يهدف إلى جمع بيانات عن استخدامك للتقنية (شبكات التواصل الاجتماعي تحديداً) للتعلم الذاتي لدعم أدائك الدراسي في الجامعة. أقصد بالتعلم الذاتي هنا استخدامك الشخصي لشبكات التواصل الاجتماعي لتطوير تعلمك بنفسك وليس كجزء من متطلبات الجامعة. بيانات هذا الاستبيان سوف تستخدم لأغراض البحث الذي أجريه بجامعة إكستر في بريطانيا كجزء من برنامج الدكتوراه لإتمام رسالتي والتي تدرس استخدام طالبات الجامعات السعودية لشبكات التواصل الاجتماعي للتعلم الذاتي.

اشتراكك في تعبئة الاستبيان محل الشكر والتقدير. جميع معلوماتك الشخصية سوف تبقى سرية بشكل كامل. جميع البيانات من هذا الاستبيان سوف تستخدم لأغراض البحث فقط بواسطة الباحثة لإكمال رسالة الدكتوراه وسوف تحفظ بسرية تامة. جميع البيانات سوف يتم مسحها بعد الانتهاء من البحث. هذا الاستبيان ليس له أي علاقة بدراساتك ولن يطلع على البيانات سوى الباحثة فقط.

عند تعبئة الاستبيان أرجو التكرم بإكمال البيانات الشخصية مثل التخصص والسنة الدراسية ثم معلومات عامة عن استخدامك لشبكات التواصل الاجتماعي .. بعد ذلك استمري في تعبئة الاستبيان وذلك باختيار المربع المناسب الذي يوضح مدى موافقتك أو عدم موافقتك للعبارة.

هند القرناس

طالبة دكتوراه التربية

جامعة إكستر في بريطانيا

الجزء الأول: البيانات الشخصية

الإسم	
العمر	
البريد الإلكتروني	
التخصص	
السنة الدراسية	

الجزء الثاني: معلومات عامة عن استخدام وسائل التواصل الاجتماعي

هل لديك حساب في أي من مواقع التواصل الاجتماعي؟ نعم لا

إذا كانت الإجابة (نعم) أرجو التكرم بتعبئة الجدول التالي بوضع علامة (صح) في المربع المناسب:

هل لديك حساب في:	نعم	لا	كم مرة تقوم بالدخول لحسابك			
			أكثر من مرة في اليوم	يوميًا	أسبوعياً	أقل من مرة في الشهر
فيسبوك						
تويتر						
بلوج						
فليكر						
ماي سبيس						
سناپ شات						

							واتس اب
							آخر (أرجو التوضيح)

لأي هدف تقومين بالدخول لحسابك: (ضعي علامة صح في المربع المناسب)

الهدف من الدخول				الحساب
تعليم	ترفيه	أهداف اجتماعية	أخرى (أرجو التوضيح)	
				فيسبوك
				تويتر
				بلوج
				فليكر
				ماي سبيس
				سناپ شات
				واتس اب
				آخر (أرجو التوضيح)

عند التفكير في قدرتك على استخدام التكنولوجيا مثل الكمبيوتر والتليفونات الذكية ... كيف تصفين مستوى مهارتك؟

- مبتدئ (مهارات بسيطة فقط)
- متوسط (مهارات جيدة)
- متقدم (مهارات ممتازة)

كيف طورتي مهاراتك في استخدام شبكات التواصل الاجتماعي؟

- حضور دورات تدريبية في الجامعة.
- حضور دورات خاصة خارج الجامعة.
- مساعدة الأساتذات والزميلات.
- مساعدة العائلة.
- عن طريق التعليم الذاتي
- أخرى (اذكريها)

هل لديك القدرة على الدخول لشبكات التواصل الاجتماعي من المنزل؟

- نعم.
- لا.

عند التفكير في قدرتك على استخدام شبكات التواصل الاجتماعي ... كيف تصفين مستوى مهارتك؟

- مبتدئ (مهارات بسيطة فقط)
- متوسط (مهارات جيدة)
- متقدم (مهارات ممتازة)

هل تستخدمين شبكات التواصل الاجتماعي للتعلم الذاتي؟

- نعم.
- لا.

إذا كانت الإجابة بنعم ... اشرح ماذا تعين بالتعلم الذاتي (اختاري جميع الخيارات الصحيحة)

- الحصول على معلومات عن برنامجي الدراسي.
- التواصل مع الخبراء والمختصين.
- مناقشة الآخرين عن محتوى دراستي وتخصصي.
- القيام بتمارين ونشاطات متعلقة بدراستي.
- البحث عن مراجع ومصادر متعلقة بدراستي.
- الحصول على مساعدة في عمل الواجبات والأبحاث.
- أخرى (.....)

الجزء الثالث: معلومات عن التعلم الذاتي

أرجو التكرم بقراءة العبارات التالية وتحديد مدى موافقتك وعدم موافقتك من خلال السلم الخماسي (لا أوافق بشدة - لا أوافق - متأكد - أوافق - بشدة) وذلك بوضع علامة (X) في المربع المناسب.

م	العبارة	لا أوافق بشدة	لا أوافق	متأكد	أوافق	أوافق بشدة
1	دائماً أكون مسؤولة عن تعلمي الذاتي بشكل فعال					
2	لا أشعر بالثقة في قدرتي على التعلم الذاتي					
3	دائماً أشعر بالمسؤولية عن تعلمي الذاتي					
4	أنا ناجحة جداً في ترتيب الأولويات والأهداف لتعلمي الذاتي					
5	دائماً أشعر أنني قادرة على التحكم في إجراءات تعلمي الذاتي					
6	أجد صعوبة في التخطيط لتعلمي الذاتي بشكل مستقل					
7	دائماً أحصل على معلومات إضافية عن الموضوعات المهمة بعد المحاضرات					
8	دائماً أنظم وقت تعلمي الذاتي بشكل فعال					
9	أنا قادرة على تقييم مستوى تعلمي الذاتي					
10	أستطيع مراقبة وملاحظة مستوى تقدم تعلمي					
11	من السهل الحصول على المصادر والمراجع المهمة لتعلمي الذاتي					
12	أطلب المساعدة من الآخرين لتطوير تعلمي الذاتي					
13	تفاعلي مع الآخرين يساعدني على التخطيط لتعلم أكثر					

الجزء الرابع: معلومات عن استخدام شبكات التواصل الاجتماعي للتعلم الذاتي

أرجو التكرم بقراءة العبارات التالية وتحديد مدى موافقتك وعدم موافقتك من خلال السلم الخماسي (لا أوافق بشدة - لا أوافق - متأكد - أوافق - بشدة) وذلك بوضع علامة (X) في المربع المناسب.

م	العبارة	لا أوافق بشدة	لا أوافق	متأكد	أوافق	أوافق بشدة
1	أنا مؤمنة بأهمية شبكات التواصل الاجتماعي كأداة للتعلم الذاتي					

				دائماً أكون مسؤولة عن تعلمي الذاتي من خلال شبكات التواصل الاجتماعي بشكل فعال	2
				شبكات التواصل الاجتماعي تشجعني على تطوير تعلمي الذاتي	3
				أنا واثقة من قدرتي على ترتيب أولويات وأهداف تعلمي الذاتي من خلال شبكات التواصل الاجتماعي	4
				أنا مهتمة باستخدام شبكات التواصل الاجتماعي لتطوير تعلمي الذاتي	5
				أنا ناجحة جداً في ترتيب أولويات وأهداف تعلمي الذاتي من خلال شبكات التواصل الاجتماعي	6
				أعتبر استخدام شبكات التواصل الاجتماعي للتواصل مع الآخرين لتحقيق التعلم الذاتي فكرة جيدة	7
				التعامل مع شبكات التواصل الاجتماعي للتعلم الذاتي يجعل التعلم أكثر متعة	8
				لا أحب استخدام شبكات التواصل الاجتماعي للتعلم الذاتي	9
				أملك المهارات الضرورية لاستخدام شبكات التواصل الاجتماعي	10
				من الضروري استخدام شبكات التواصل الاجتماعي للتعلم الذاتي لكي أصبح ناجحة في دراستي الجامعية	11
				شبكات التواصل الاجتماعي تجعل بيئة التعلم الذاتي أسهل	12
				استخدام شبكات التواصل الاجتماعي لتطوير التعلم الذاتي يمكن أن يوفر الوقت والجهد	13
				أشعر بالثقة في قدرتي على الحصول على المعلومات عند استخدامي لشبكات التواصل الاجتماعي للتعلم الذاتي	14
				بروسس	
				أشعر أن لدي القدرة على التحكم في تعلمي الذاتي من خلال شبكات التواصل الاجتماعي	15
				أشعر بالثقة في قدرتي على تنظيم تعلمي الذاتي من خلال شبكات التواصل الاجتماعي	16
				أعرف كيف أجد المصادر والمراجع التي تدعم تعلمي الذاتي في شبكات التواصل الاجتماعي	17
				القيام بخطوات التعلم الذاتي من خلال شبكات التواصل الاجتماعي سهل بالنسبة لي	18
				إيجاد مجموعات مناسبة للتعلم في شبكات التواصل الاجتماعي يعتبر مهمة سهلة بالنسبة لي	19
				أستطيع التواصل مع الآخرين بشكل فعال في شبكات التواصل الاجتماعي لتحقيق وتطوير تعلمي الذاتي	20
				أعتقد أنني سأقوم بالخطوات اللازمة لتعلم أشياء جديدة من خلال شبكات التواصل الاجتماعي بدلاً من انتظار الأستاذات في الجامعة ليقوموا بتعليمي	21
				أستطيع التخطيط لتعلمي الذاتي من خلال شبكات التواصل الاجتماعي بشكل مستقل بدون مساعدة	22

					دائماً أستخدم المحتوى الذي أجده بنفسني في شبكات التواصل الاجتماعي في ما يخدم دراستي الجامعية	23
					أنا مقتنعة جداً أن لدي القدرة على التحكم بتعلمي الذاتي من خلال شبكات التواصل الاجتماعي	24
					أنا دائماً مدركة لمدى تقدمي في التحصيل عندما أتعلم ذاتياً من خلال شبكات التواصل الاجتماعي	25
					دائماً أطور تعلمي الذاتي بشكل مستقل من خلال شبكات التواصل الاجتماعي عندما لا أكون منجزة بالشكل المطلوب في دراستي	26
					أستمر في التعلم الذاتي عن موضوعات تخصصي من خلال شبكات التواصل الاجتماعي حتى بعد انتهاء الفصل الدراسي	27
					دائماً أنظم وقت تعلمي الذاتي بشكل فعال	28
					الخطوات والإجراءات الفعلية لاستخدام شبكات التواصل الاجتماعي للتعلم الذاتي ممتعة بالنسبة لي	29
					أستطيع تقييم أدائي الشخصي من خلال شبكات التواصل الاجتماعي لتطوير وتحسين تعلمي الذاتي	30
					أستطيع مراقبة مستوى أدائي وتقدمي في التعلم الذاتي من خلال شبكات التواصل الاجتماعي	31
					كونتكتست	
					إذا كان هناك شيء لا أفهمه في المحاضرات دائماً أستخدم شبكات التواصل الاجتماعي لأتعلمه بنفسني	32
					دائماً يكون عندي مشاكل في معرفة ما يجب أن أقوم به لتطوير تعلمي الذاتي إذا لم أحصل على مساعدة المحاضرين	33
					شبكات التواصل الاجتماعي تعزز من إحساسي بالمسؤولية تجاه تعلمي الذاتي	34
					أطلب المساعدة من أستاذاتي لتطوير تعلمي الذاتي	35
					المصادر المتوفرة في شبكات التواصل الاجتماعي مفيدة لتعلمي الذاتي	36
					لدي مجموعات تواصل على شبكات التواصل الاجتماعي تزودني بما أحتاج أن أتعلمه بنفسني	37
					أتواصل مع زميلاتي في الجامعة من خلال شبكات التواصل الاجتماعي لتطوير تعلمي الذاتي	38
					أتواصل مع أشخاص آخرين من خلال شبكات التواصل الاجتماعي لتطوير تعلمي الذاتي	39
					دائماً أعتد على شبكات التواصل الاجتماعي لأفهم الأشياء التي أجد فيها صعوبة	40
					تفاعلي مع الآخرين من خلال شبكات التواصل الاجتماعي يساعدني على التخطيط لتعلم إضافي	41
					أستاذاتي يقدمن لي الدعم لتطوير تعلمي الذاتي من خلال شبكات التواصل الاجتماعي	42

43	زميلاتي يقدمن لي الدعم لتطوير تعلمي الذاتي من خلال شبكات التواصل الاجتماعي				
44	من السهولة إيجاد مجموعات تدعم تعلمي الذاتي في شبكات التواصل الاجتماعي				
45	المعلومات التي أجدتها في شبكات التواصل الاجتماعي هي معلومات موثوقة				
46	الناس الذين أتعامل معهم من خلال شبكات التواصل الاجتماعي هم ناس متخصصين أستطيع الاعتماد عليهم				
	الإضافة				
47	عندما استخدم شبكات التواصل الاجتماعي للتعلم الذاتي أستطيع الاحساس بمدى تقدم مستواي الدراسي				
48	استخدام شبكات التواصل الاجتماعي للتعلم الذاتي طور وحسن نتائجي الدراسية بشكل كبير				
49	استخدام شبكات التواصل الاجتماعي للتعلم الذاتي زاد من ثقتي في معرفتي وتحصيلي				

سوف أقوم بإجراء مقابلات ومذكرات مع طالبات جامعة حائل للحصول على فهم أكثر عن طبيعة استخدام شبكات التواصل الاجتماعي لتطوير التعلم الذاتي. المقابلة تستغرق وقت قصير وسوف أكون شاكراً ومقدرة لاشتراكك فيها نظراً لأهميتها لاتمام رسالة الدكتوراه التي أقوم بها. إذا كنت ترغبين الاشتراك .. أرجوا التكرم بكتابة بريدك الإلكتروني ورقم جوالك لأتمكن من التواصل معك.

شكراً على إشتراككم في تعبئة الاستبيان

Appendix 4: Interview final version

Students' interview.

Participant Code:

Location:

Date:

Time In:

Time Out:

Personal learning

- 1- Firstly, what do you think about developing your learning personally?
- 2- How do you see the responsibilities of the university students about their learning?
- 3- Should you rely on what you receive at university? Why?
- 4- Do personal learning develop you educational performance? Can you give me more explanation?

Social networking sites

- 1- Do you use SNSs in your life? If so, what kind of SNSs? And what you use them for?
- 2- From your opinion, what do you think about the role of SNSs in our life?
- 3- Do you use SNSs for your personal life? For what reason do you use them?

Use of SNSs for personal learning

- 1- We've talked a little bit about personal learning and SNSs in general, I now want to ask you about the use of SNSs for personal learning. What do you think about the use of SNSs for personal learning?
- 2- Do you SNSs are very important to promote your personal learning? Can you explain your view more clearly?
- 3- What kind of SNSs do you use to develop your learning? Why these sites? Can you explain more?
- 4- I noticed that in the questionnaire a lot of students are using Twitter, WhatsApp and Snapchat. Can you give an example why do you use them in education? Can you explain your view more clearly?
- 5- Why those sites? Do you think the lectures ask to use them or do you think it is beneficial for learning? Or do you use them just because everyone use them or do you use them to get best information?
- 6- What kind of information do you get from them?
- 7- Do you think SNSs improve your personal learning? Can you explain more?
- 8- What difficulties or challenges you face when you use SNSs for personal learning?

Self-directed learning factors

1- Personal factors:

- 1- In the questionnaire, most students believed in the importance of SNSs as tools for personal learning. Why is personal learning environment important to you?
- 2- How do you see personal learning through SNSs?
- 3- Do you feel that personal learning through SNSs have made a difference to the traditional personal learning? Can you tell me about the differences (if any)?
- 4- Some students believe that using SNSs support their personal learning and other do not agree. Explain. In what way could your personal learning be improved?
- 5- What sort of relationship do you have with SNSs?
- 6- Do you think working with SNSs for personal learning makes the learning more interesting? Can you tell me about your experience?
- 7- Do you find SNSs as easy tools to develop your personal learning? How or Why?
- 8- A lot of students in the questionnaire feel confident finding information when they use SNSs for personal learning. How do you describe your confidence?

Learning Process:

- 1- Some students in the questionnaire agreed that it is important to evaluate their own progress in using SNSs for personal learning. How do you evaluate your progress? How do you view your responsibilities in the learning process?
- 2- How can you plan for your personal learning through SNSs independently?
- 3- Do you learn best when you have control over your personal learning, such as determining what, when, and how you will learn? Do you monitor your progress?
- 4- When using SNSs to promote your personal learning, do you note when the information you received are not useful or not known to you, and then do you formulate a plan for resolving these problems?

Contextual factors:

- 1- Most students who participated in the questionnaire agreed that communication with their colleagues at universities through SNSs improves their personal learning. Do you agree with that? Can you explain how?
- 2- Do you receive help from your lecturers to develop your personal learning? Tell me about your personal opinion?
- 3- Do you communicate with others through SNSs to improve your personal learning? Can you explain more?
- 4- How SNSs help you to effectively communicate with others to develop your personal learning? Can you tell me more about your experience?
- 5- SNSs have some advantages such as providing students with resources that support their personal learning. Do you think it is useful? Can you tell me about your opinion?
- 6- How can using SNSs for personal learning help you in the course materials?
- 7- Some university students see SNSs as tools to provide them with what they need to learn by themselves by communication groups. How do you think about this? Can you explain your opinion?
- 8- How can you find the appropriate learning groups in the SNSs?
- 9- What is your belief about the information you are provided with by SNSs? Do you think it is reliable? Can you give the reason why you said that?
- 10- How confident do you feel using SNSs? What extra support would be useful? Where would you get this support from?
- 11- From your experience, how can your interaction with others help you plan for further learning?
- 12- Regarding your subject, do you think SNSs are important for your subject or for all subjects? Can you explain more your opinion?

Is there anything else you would like to say about the use of SNS for personal learning?

Appendix 5: Arabic interview final version

اسم الطالبة: التخصص: الايميل:
المكان: رقم الجوال: التاريخ: الوقت:

شكر – هدف البحث – الخصوصية – مقدمة تشمل تعريف التعلم الذاتي وشبكات التواصل

التعلم الذاتي:

- 1- بداية، ماهي وجهة نظرك عن تطوير تعلمك ذاتياً؟
- 2- كيف ترين مسؤوليات الطالبة الجامعية عن تعلمهن؟
- 3- برأيك، هل من المفروض أن تعتمدين على ما تتلقينه في الجامعة فقط؟ لماذا؟
- 4- هل التعلم الذاتي يطور من مستوى أدائك الدراسي؟ ممكن تشرحين أكثر؟

شبكات التواصل الإجتماعي:

- 1- ماذا تستخدمين من شبكات التواصل الاجتماعي؟ لماذا هذه المواقع بالذات؟ ماذا يميزها عن غيرها؟ هل جربتي مواقع أخرى؟
- 2- من وجهة نظرك، ماذا تعتقدن عن دور شبكات التواصل الاجتماعي في حياتك بشكل عام؟
- 3- هل تستخدمين شبكات التواصل الاجتماعي في حياتك الخاصة؟ لأي سبب تستخدمينها؟

استخدام شبكات التواصل للتعلم الذاتي:

- 1- تكلمنا شوي عن التعلم الذاتي وعن شبكات التواصل الاجتماعي بشكل عام، الآن أود أن أسألك عن استخدام شبكات التواصل الاجتماعي للتعلم الذاتي؟ ماهي وجهة نظرك عن استخدام هذه الشبكات للتعلم الذاتي؟
- 2- هل تعتقدن أن شبكات التواصل مهمة لتطوير التعلم الذاتي؟ ممكن تشرحين وجهة نظرك عن هذا الموضوع بشكل أثر تفصيل؟
- 3- ما نوع شبكات التواصل الاجتماعي التي تتعاملين معها خلال دراستك؟ لماذا هذه الشبكات بالذات؟ هل جربتي غيرها؟
- 4- من نتائج الاستبيان الذي أجريته مسبقاً، لاحظت أن كثير من الطالبات يستخدمن تويتر، واتساب و سناب شات. هل تتفقين مع هذه النتيجة؟ ممكن تعطيني أمثلة لماذا تستخدمينها في الدراسة؟ ممكن تشرحين وجهة نظرك أكثر؟
- 5- لماذا هذه المواقع بالتحديد؟ هل المحاضرات يطلبون استخدامها؟ أو هل تعتقدن أنت أنه مفيد؟ هل تستخدمينها لمجرد أن الآخرين يستخدمونها؟
- 6- ما نوع المعلومات التي تسعين للحصول عليها من هذه المواقع؟
- 7- هل طور استخدام شبكات التواصل الاجتماعي تعلم الذاتي؟ اشرحي لي كيف؟
- 8- ماهي الصعوبات أو التحديات التي تواجهك اذا استخدمتي شبكات التواصل للتعلم الذاتي؟

عناصر التعلم الوجه ذاتياً:

أولاً: العامل الشخصي:

- 1- في الاستبيان، أكثر الطالبات مؤمنات بأهمية شبكات التواصل الاجتماعي كأدوات للتعلم الذاتي، هل تتفقين مع هذا؟ لماذا تعتبر بيئة التعلم الذاتي مهمة بالنسبة لك؟
- 2- اشرحي لي كيف ترين التعلم الذاتي من خلال شبكات التواصل الاجتماعي؟ ما رأيك؟
- 3- هل تشعرين أن التعلم الذاتي من خلال شبكات التواصل صنع فرق عن التعلم الذاتي التقليدي مثلاً عن طريق الكتب والقراءة؟ ممكن تشرحين لي الفرق من وجهة نظرك؟
- 4- بعض الطالبات يعتقدن أن استخدام شبكات التواصل يدعم تعلمهن الذاتي، وبعضهن لا يعتقدن ذلك، اشرحي لي، كيف يمكن تطوير تعلمك الذاتي؟
- 5- ما طبيعة علاقتك مع شبكات التواصل؟
- 6- هل تعتقدن أن العمل مع شبكات التواصل الاجتماعي للتعلم الذاتي يجعل التعلم ممتع أكثر؟ ممكن تشرحين لي أكثر عن تجربتك الشخصية؟
- 7- هل تعتبرين شبكات التواصل أدوات سهلة لتطوير التعلم الذاتي؟ كيف؟ لماذا؟
- 8- من نتائج الاستبيان، كثير من الطالبات يشعرن بالثقة من وجود المعلومات المطلوبة عند استخدام شبكات التواصل للتعلم الذاتي، هل تتفقين مع هذا؟ كيف تصفين مدى ثقتك من ذلك؟

إجراءات التعلم:

- 1- من نتائج الاستبيان، كثير من الطالبات وافقن على أهمية تقييم مستوى أداءهن عند استخدام شبكات التواصل الاجتماعي للتعلم الذاتي، كيف تقيمين مستوى أدائك؟ كيف ترين مسؤولياتك في إجراءات التعلم؟
- 2- كيف يمكن أن تخططين لتعلمك الذاتي من خلال شبكات التواصل بشكل مستقل؟
- 3- هل تتعلمين أفضل عندما تكونين مسؤولة عن تعلمك بشكل مستقل؟ مثلاً تحديد ماذا وكيف ومتى تتعلمين أو تدرسين؟ هل تتابعين أو تراقبين مستوى أدائك؟
- 4- عندما تستخدمين شبكات التواصل الاجتماعي للتعلم الذاتي؟ هل تلاحظين عندما تكون المعلومات التي تجدينها مفيدة أو غير مفيدة، معروفة أو غير معروفة بالنسبة لك؟ كيف تكونين خطة لحل هذه المشاكل؟ أو كيف تحلين هذه المشكلة المتعلقة بمدى ثقتك من صحة المعلومات؟

البيئة:

- 1- أكثر الطالبات اللي اشتركن بالاستبيان ذكرن أن التواصل مع الزميلات من خلال شبكات التواصل الاجتماعي طور تعلمهن الذاتي، هل توافقين على هذا الكلام؟ ممكن تشرحين كيف؟
- 2- هل تتلقين مساعدة من الأستاذات لتطوير تعلمك الذاتي؟ تكلمي لي عن رأيك الشخصي؟
- 3- هل تتواصلين مع الآخرين من خلال شبكات التواصل لتطوير تعلمك الذاتي؟ اشرحي أكثر؟
- 4- كيف تساعدك شبكات التواصل على التواصل بشكل فعال مع الآخرين لتطوير تعلمك الذاتي؟ ممكن تكلميني أكثر عن تجربتك الشخصية؟
- 5- شبكات التواصل لها بعض المميزات مثل تزويد الطالبة بالمصادر والمراجع التي تدعم تعلمها الذاتي، هل تعتقدين أنها مفيدة؟ ممكن تكلمين أكثر عن رأيك في هذا الموضوع؟
- 6- كيف يمكن لاستخدام شبكات التواصل للتعلم الذاتي أن يساعدك في مهامك الدراسية ومتطلبات الكورس؟
- 7- بعض الطالبات ينظرن لشبكات التواصل كأدوات لتزويدهن بما يحتجن لتعلمن بأنفسهن من خلال التواصل مع مجموعات، ماذا تعتقدين عن هذا الموضوع؟ ماهي تجربتك الشخصية؟
- 8- كيف يمكنك أن تجدين مجموعات أو قروبات التعلم المناسبة في شبكات التواصل؟
- 9- ماهو اعتقادك عن المعلومات التي تتلقينها من شبكات التواصل الاجتماعي؟ هل تعتقدين أنها معلومات موثوقة؟ ممكن تقولين لي ليش تعتقدين هذا؟
- 10- ما مدى ثقتك عند استخدامك لشبكات التواصل للتعلم؟ ما هو الدعم الذي تتمنيينه وترين أنه من الممكن أن يكون مفيد لتعلمك الذاتي من خلال شبكات التواصل؟ من ممكن أن يقدم هذا الدعم؟
- 11- من تجربتك الشخصية، كيف يمكن لتفاعلك مع الآخرين أن يساعدك للتخطيط لتعلم أكثر أو تعلم إضافي؟
- 12- بالنسبة لتخصصك، هل ترين أن شبكات التواصل لها أهمية خاصة في تخصصك أم أنك ترين أنها مهمة لجميع التخصصات؟ ممكن تشرحين أكثر؟
- 13- هل هناك أي شئ تودين أن تقولي عن استخدام شبكات التواصل للتعلم الذاتي؟

Appendix 6: Text diary final version

Text Diary of Students about Using Social Networking Sites to promote their Personal Learning

Dear students, Thank you so much for taking part in the interview and that influenced dramatically the study. In order to collect further data about the use of social networking sites to promote personal learning, writing diary is needed this week and this through answering questions. The study requires writing a diary once a week for three or four weeks. Each one takes about ten or fifteen minutes to write diary. Thank you again for your help to complete the study.

Name.....

Subject

Day.....

Date.....

Which social networking site do you use this week?

.....

How long do you spend it?

.....

First step: Planning

What are you planning to do this week?

.....

How did you determine your own goals?

.....

How did you manage your task and time?

.....

When you use SNSs to develop personal learning and how)? How many hours did you put into studying today?

.....

Did you decide which type of SNSs you will use to achieve you aim (for example Twitter or Facebook....)? Why?

.....

Second step: Monitoring

How can you monitor your progress this week?

.....

Is your progress slow? Is your time running out?

Can you explain clearly?

.....

Is the type of SNSs you have chosen effective to achieve your personal learning? How?

.....

How much time did you devote to develop your personal learning?

.....

What obstacles you faced this week? And what did you do to manage these obstacles?

.....

How can you measure control over your personal learning through SNSs?

.....

What were the specific actions that you took this week to achieve your goals?

.....

Third step: Evaluation

How can you evaluate your own learning outcomes for this week?

.....

In this week, did your lecturer encourage you to use social networking sites to seek further information regarding the materials? If yes..... How?

.....


Did you feel you got reach your aim? Explain how?

.....

To achieve next week's goals, what changes would you make to improve your personal learning?

.....

Appendix 7: Certificate of Ethical Approval

 **UNIVERSITY OF EXETER**

GRADUATE SCHOOL OF EDUCATION

St Luke's Campus
Heavitree Road
Exeter UK EX1 2LU

<http://socialsciences.exeter.ac.uk/education/>

CERTIFICATE OF ETHICAL APPROVAL

Title of Project: The use of Social Networking Sites (SNS) to promote personal learning by Saudi Arabian university students

Researcher(s) name: Hind Rasheed Alqirnas

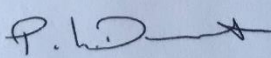
Supervisor(s): Judith Kleine Staarman
Jane Seale

This project has been approved for the period

From: 15.02.2016
To: 15.06.2016

Ethics Committee approval reference:

D/15/16/30



Signature: Date: 02/02/2016
(Dr Philip Durrant, Chair, Graduate School of Education Ethics Committee)

Appendix 8: University of Hail approval

الرقم: ٢٧/٤/٨٥٧٨
التاريخ: ١٤٢٧/٤/٨
المرفقات: ١
القيود: ١


وكالة الجامعة للدراسات العليا والبحث العلمي
Vice Rector for Graduate Studies & Scientific Research

المملكة العربية السعودية
وزارة التعليم
جامعة حائل
Kingdom of Saudi Arabia
Ministry of Education
University of Ha'il

سعادة المحقق الثقافي في لندن
سلمه الله

السلام عليكم ورحمة الله وبركاته

إشارة إلى الطلب المقدم من الطالبة / هند رشيد سعود القرناس رقم الهوية الوطنية (١٠٢٩٤٥٥٣٧٣) المبتعثة من قبل وزارة التعليم (برنامج خادم الحرمين الشريفين) لدراسة الدكتوراه في تخصص Education في جامعة Exeter بشأن القيام برحلة علمية لإكمال إجراءات بحثها بعنوان :

" استخدام شبكات التواصل الاجتماعي لتطوير التعليم الذاتي من قبل طلاب جامعة حائل "

عليه نفيدكم بأنه لا مانع لدينا من إكمال إجراءات البحث بجامعة حائل في الفترة من ١٨ مارس ٢٠١٦م إلى ٣٠ أبريل ٢٠١٦م بناءً على طلبه .

وتقبلوا سعادتك التحية والتقدير،

وكيل الجامعة
للدراسات العليا والبحث العلمي المكلف
أ.د. عبدالله بن محمد الدوسري

المملكة العربية السعودية - حائل هاتف : ٠١٦٥٣٥٨٢٣٠ فاكس : ٠١٦٥٣١٠١٩٢ ص.ب: ٢٤٤٠ حائل
Saudi Arabia Hail : 01653358230 fax : 0165310192 Post Box No Hail 2440 Email : gsr@uoh.edu.sa

Appendix 9: Consent form



GRADUATE SCHOOL OF EDUCATION

Project title: The use of Social Networking Sites (SNSs) to promote personal learning by Saudi Arabian university students

CONSENT FORM FOR THE UNIVERSITY STUDENTS

I have been fully informed about the aims and purposes of the project.

I understand that:

There is no compulsion for me to participate in this research project and, if I do choose to participate, I may at any stage withdraw my participation

I have the right to refuse permission for the publication of any information about me

Any information which I give will be used solely for the purposes of this research project, which may include publications

If applicable, the information, which I give, may be shared between any of the other researcher(s) participating in this project in an anonymised form

All information I give will be treated as confidential

The researcher(s) will make every effort to preserve my anonymity

.....
(Signature of participant)

.....
(Date)

.....
(Printed name of participant)

One copy of this form will be kept by the participant; a second copy will be kept by the researcher

Contact phone number of researcher (Hind Alqirnas): UK 00447736930943...[REDACTED]

If you have any concerns about the project that you would like to discuss, please contact:

[REDACTED] OR Hrsa202@exeter.ac.uk

Alternative contacts:

First supervisor:

Dr Judith Kleine Staarman

Phone number: [REDACTED]

Email address: J.Kleine-Staarman@exeter.ac.uk



GRADUATE SCHOOL OF EDUCATION

Second supervisor:

Prof Jane Seale

Phone number: [REDACTED]

Email address: J.Seale@exeter.ac.uk

Data Protection Act: The University of Exeter is a data collector and is registered with the Office of the Data Protection Commissioner as required to do under the Data Protection Act 1998. The information you provide will be used for research purposes and will be processed in accordance with the University's registration and current data protection legislation. Data will be confidential to the researcher(s) and will not be disclosed to any unauthorised third parties without further agreement by the participant. Reports based on the data will be in anonymised form.

Appendix 10: Information letter

Information letter for students

The use of Social Networking Sites (SNSs) to promote personal learning by Saudi Arabian university students.

Dear students

I am conducting a study to complete my PhD degree at the University of Exeter in the United Kingdom. The study purpose is to explore the use of social networking sites to promote personal learning by Saudi Arabian university students. The social networking sites is an online platform that allows users to create a public profile and interact with others on these websites such as Facebook and Twitter. That will include measuring the students' perceptive of using social networking sites for personal learning through a questionnaire, Interviews with participants and keeping diaries in order to have insights into the use of SNSs to promote the personal learning by the university students. The permission to conduct this study from Hail University was obtained and ethical approval from Exeter University was done.

To conduct the study, it requires your participation by completing a questionnaire. I small number (around 20 participants) of the questionnaire participants will be chosen for interviews and keeping diaries about the use of social networking sites to promote personal learning in order to collect data needed for the study. Your participation to complete the questionnaire will take about 15 minutes, and if you participate in the interview later, it will take around 30 minutes. Interviews will be recorded for the purpose of the study only and will be deleted later when transcribed. Writing your diaries (in case you participated later) will take about 15 minutes each week for a month to describe your actual use of social networking sites to promote personal learning in the three factors (learning process, personal and contextual factors). All the participants' names and information will be kept completely confidential and will not be disclosed as they will be given pseudonyms. All the information you provide will be used for research purpose only and your personal data will be treated in the strictest confidence and will not be

disclosed to any third parties. The results of the research will be published in anonymised form. All the information and data collected from the participants such as completed questionnaires, interview transcripts, diaries, audio recording will be kept in a secure and safe place and will be destroyed later after finishing the study. Any electronic materials will be also deleted immediately when they are no longer needed. The participation is completely optional and in case you agree to participate, you have the right to withdraw at any time without giving reasons.

I very much appreciate your participation in this study. If you have any concerns about the study that you would like to discuss, please do not hesitate to contact me.

The researcher

Hind Alqirnas

Phone number: UK 00447736930943 ... [redacted]

Email address: h.alqirnas@exeter.ac.uk or hrsa202@exeter.ac.uk

First supervisor:

Dr Judith Kleine Staarman

Phone number: [redacted]

Email address: J.Kleine-Staarman@exeter.ac.uk

Second supervisor:

Prof Jane Seale

Phone number: [redacted]

Email address: J.Seale@exeter.ac.uk

Appendix 11: Arabic diary final version

المذكرات النصية

عزيزتي الطالبة .. شكراً جزيلاً على تكرمك بالاشتراك في المقابلة والتي أثرت بحثي بشكل كبير. إكمالاً لجمع البيانات لدراستي عن استخدام شبكات التواصل الاجتماعي لتطوير التعلم الذاتي ... أرجو التكرم بكتابة هذه المذكرات عن استخدامك لشبكات التواصل هذا الأسبوع للتعلم الذاتي وذلك على شكل إجابات لبعض الأسئلة. يتطلب بحثي أن تكتبي مذكرات مرة في الأسبوع لمدة ثلاثة أو أربعة أسابيع. في كل مرة يتطلب الأمر عشر دقائق أو 15 دقيقة فقط لكتابة المذكرات. شكراً لك مرة أخرى على مساعدتك القيمة لي لإتمام بحثي.

الإسم : التخصص: اليوم: التاريخ:

أي موقع من مواقع التواصل الاجتماعي استخدمته هذا الأسبوع للتعلم الذاتي؟

كم المدة التي قضيتها هذا الأسبوع على شبكات التواصل الاجتماعي للتعلم الذاتي؟

التخطيط:

ماذا كانت مخططاتك لهذا الأسبوع بخصوص استخدام شبكات التواصل للتعلم؟

كيف حددتي أهدافك أو ما تحتاجين أن تتعلميه؟

كيف أدرتي أو نظمتي المهام والأنشطة التي قمتي بها وكيف أدرتي ونظمتي وقت التعلم؟

ماهي الأشياء التي تجعلك تفكرين باستخدام شبكات التواصل للتعلم .. أو متى تفكرين بالجوء لشبكات التواصل للتعلم؟

هل قررتي مسبقاً أي نوع من شبكات التواصل سوف تستخدمينه لتحقيق أهدافك في التعلم (مثلاً تويتر أو فيسبوك ... إلخ)؟ ولماذا هذه المواقع بالذات؟

مراقبة الأداء:

كيف تابعتي أداءك للتعلم هذا الأسبوع .. أو كيف راقبتي أداءك؟

هل كان إنجازك بطي؟

هل لديك الوقت الكافي للتعلم من خلال شبكات التواصل؟ أو هل ينقصك الوقت الكافي؟ ممكن تشرحين أكثر عن هذا الموضوع؟

هل كانت مواقع التواصل التي اخترتها للتعلم هذا الأسبوع فعالة وجيدة في تحقيق أهدافك الشخصية للتعلم؟ كيف؟ ممكن تشرحين أكثر وتعطين أمثلة؟

كم خصصتي من الوقت لتطوير تعلمك الذاتي؟

ماهي العقبات أو الصعوبات التي واجهتها هذا الأسبوع بخصوص تعلمك من خلال شبكات التواصل؟ وماذا فعلتي للتغلب على هذه العقبات؟

كيف تقيسين مدى تحكمك وإدارتك لتعلمك من خلال شبكات التواصل؟

ماهي الخطوات التي قمتي بها هذا الأسبوع لتحقيق أهداف تعلمك؟ ممكن تشرحين بالتفصيل؟

التقييم:

كيف تقيمين تعلمك الذاتي من خلال شبكات التواصل هذا الأسبوع؟ هل تحققت الأهداف؟ ممكن تشرحين بالتفصيل؟

خلال هذا الأسبوع ... هل قامت أستاذاتك في الجامعة بتشجيعك على استخدام شبكات التواصل للحصول على معلومات أكثر عن المواضيع؟ إذا كانت الإجابة نعم .. كيف؟

هل تشعرين أنك حققتي أهدافك للتعلم من خلال شبكات التواصل؟ ممكن تشرحين أكثر؟

لتحقيق أهدافك في الأسبوع القادم ... ماهي التغييرات التي تعتقدين أنه يجب أن تقومين بها لتطوير تعلمك الذاتي ليكون أفضل من هذا الأسبوع؟

Appendix 12: Example of interview transcript

Interview 22

Subject: Primary Education

Date: 06-04-2016 Time: 11 AM

Q1: Firstly, what do you think about developing your learning personally?

I believe that personal learning, if the student has the desire to learn, personal learning in this case is an effective type of learning and it is better and more effective than the traditional learning through listening to a lecture because student would have the desire and self-responsibility about learning. There is a theory stating that learning does not occur unless the student want to learn and seek knowledge, therefore, I believe personal learning is better, this is my opinion.

Q2: How you see the responsibilities of university students for their learning?

Well ... I guess ninety percent of learning is the student's responsibility, because lecturers would not benefit student if the student herself is not willing to learning and put effort to do so. Actually I can say that the student is totally in charge about her learning and its process. If the student is not willing to learn properly, she would not learn even if she attended lectures. So, learning and its process is the university student's responsibility.

Q3: In your opinion, should you rely on what you receive at university during lectures? Would that be enough?

No, at all, sometimes the lecture time is not enough to give you what you need to learn, sometimes the lecturer teaching style does not suite you, some of them are so fast in the lecturers and so on. Lectures at university should not be the only source of knowledge and it's not enough to rely on in your learning.

Q4: Do you think personal learning would improve your performance and academic knowledge?

Of course, because if you do not have pervious ideas and background about what you learn at the university, you would not benefit from what you receive in the class.

Q5: Let's move now and talk about social networks. What social networks do you use in general?

Ok ... many people might have joined these networks recently ... in my case, I started using these sites from an early stage of my life at the beginning of high school. I used to use the internet regularly; websites, forums. I used to read a lot through the internet. So, I think I am an old user of the internet in general. This thing, I think, has developed my personality, my language, my thoughts, it has given me more knowledge and widened my literature. Nowadays, I use Ask network because it allows me to add people, academics, professionals, and we communicate directly and easily to discuss any question or point in any subject ... Many examples in this case of academics and scientists that not necessarily to contact with directly, but also to read their discussions with the others, sometimes I do not need to ask, just I read their discussions with the others and find what I need. Sometimes for example the 'Like' a specific piece of information then I receive a notification about that and I go directly to the materials they liked and find it very useful and makes me go further and further in this topic which develop my knowledge. Actually I access these sites almost every day.

Q6: What do social networks mean to you? How important they are for you?

Now it became an essential and you cannot spend a day without it, however I do not depend on it alone on my communications with people, I like face-to-face communications.

Q7: So, what is the role of social networks in your life in general?

Look, sometimes for example I have curiosity to know more about something that I hear about in any community and seems to me important. Sometimes I feel shy to ask further questions and I usually go to the social networks to know more. Sometimes I access social networks for entertainment, sometimes I share my views and opinion about any topic through social network, it is multiple purposes really, multiple reasons.

Q8: We talked about personal learning, and we talked about the use of social networks in general; now I want to ask you about the use of social networks for personal learning particularly, what do you think about the use of social networks for personal learning?

Well, at the university, they usually give basic skills and knowledge, even for subjects need practical skills like research, they usually teach it as theoretical concepts. Now I am in year six, and I have just had enough knowledge to use the library resources properly, because there was no support from lecturers on how to gain these basic skills. No support on how to develop personal learning skills. So, I believe that university student should have the desire and ambition to learn personally and to try to develop the skills early in the study because the university does not seem to support this matter. However, recently, and after applying the quality control at the university, they started giving the student some independent tasks and research which the majority of student do not seem to be used to it. I think personal learning is a major source of knowledge and learning at the university but its skills need to be developed early and the university should support student to develop these skills. Now, even when lecturers ask as to do independent tasks, they do not give enough information on how to do it or how to find resources, we need help to develop these skills, we need more support. When this support is given to the students, I think we all will be keen to practice this type of learning.

Q9: How do you think about the role of social networks on developing your personal learning?

I think social networks are very important for personal learning. Now we read in the social media and online material more than books. In this generation, I think people prefer to read and discuss topics in social media rather than the traditional ways. I feel that social networks are the ideal source of information related to the course, it is easy to access at anytime and anywhere, I think personal learning can be achieved ideally through social network nowadays.

Q10: What social network you use to develop your personal learning?

I usually search in google which leads me to any social network or any other online materials. Some social networks might not help in our stage now where we search mostly for books and articles. For example, Snapchat and Instagram will not be very useful in this case.

Q11: from the questionnaire findings, many students use Twitter, Snapchat or WhatsApp. What do you think about that?

I do not know, in these sites, it is difficult to find active users in my subject, minor number of users might discuss topics in my subject. I think these sites now are used for entertainment and those who could provide useful information related to my subject are very limited. Because of that I search in Google and many times it leads to information provided through social networks.

Q12: How are your lecturers with the social networks use for course purposes?

Not very active, they do not usually mention it unless a lecturer has an account in Twitter for example, she sometimes gives it to us and post course related materials and some information about the lectures time and locations, very limited use. Some social networks, I have never met lecturers who use it for course related use such as Snapchat.

Q13: What type of course related information you usually search for?

Any information related to the course really, any information related to the topics we study during lectures. I firstly search in the social networks and the internet in general. I like it more than reading books. I think it suits me more.

Q14: has the use of social networks developed your personal learning?

Well, now maybe we do not have a clear strategy on how to use social networks to develop personal learning. However, it is good to use it to develop ourselves in any topic and to know more information about it because social networks are open resources of information that everyone around the world could contribute to any topics under discussion. So, you can see unlimited views and opinions about the topics you are interested in, unlike books that are usually hold a single or limited point of view. Social networks are very helpful in this matter.

Q15: What obstacles or challenges that face you when you use social networks for personal learning?

The challenge I face is the diverging nature of the social networks when I am tracking a topic. Sometimes you find yourself going away from the topic you are interested in.

Q16: Do you mean it is time consuming?

No, social networks are good in spending free time I have, even if I am reading a book I can access social networks, it is not limited to specific time or place.

Q17: In the questionnaire most of the students believed in the importance of social networks for personal learning. Do you agree with them?

Yes, they are very important. Unlike the materials we receive in the university classes, social networks information and materials are very rich. It is more open for discussion than in the lectures where the time is limited and the lecturers are following their own strategy of teaching. I think social networks are more important for getting wider information than lectures.

Q18: So, how you see personal learning through social networks?

As I said earlier, it is more flexible and comfortable way of learning and it suits all type of students from different age group.

Q19: do you think personal learning through social networks has made difference than in the traditional learning through reading books?

Social networks have provided wider range of knowledge and information than books did ... and the social networks provide information in a simple and easy way unlike books. It also depends on the student's preferences, for example some of them prefer to read a book while others prefer to search and discuss in the social networks.

Q20: Some students believe that social networks supported their personal learning, and some of them do not, explain to me how you develop your personal learning?

I became a dependent on social networks for many tasks that we are asked to do, for example assignments, and some other course works, I use social networks and other online databases to get materials I need, I depend on social networks in many course related works. It is difficult to say it's not important.

Q21: How is your relationship with the social networks in general?

I can say they became my real friend, closer than my human friends, they have never been boring (Laugh).

Q22: Do you think working with social networks for personal learning makes learning more interesting?

Yes, very much interesting, especially because you have the control over what you want to learn and the process of learning. You do not need to follow the others instructions in how to learn or how to do things. You do it in your way with people you want to listen to them. It is much more interesting than the other ways of learning.

Q23: Do you see social networks as easy tools for personal learning?

Easy but might be harmful if used in a wrong way. I can describe it as a "double-edged sword". For example, if the student does not have basic skills of how to find related information, she could reach to the wrong or untrusted information and get to undesired conclusion.

Q24: From the questionnaire findings, many students feel confident that they will find information they need when using social networks for personal learning. Do you agree or disagree with that? What is your opinion in this matter?

I agree that information is always available, but you need trusted contents from trusted people. Sometimes you do not find this trusted information. You need to remember that these information is people opinions and everyone can contribute to the discussion. Beside the social networks content, I need to have other resources which should be books and references which provide trustable information. Social networks can facilitate many aspects when learning but they need to be supported by other resources.

Q25: From the questionnaire findings, a lot of students believed in the importance of assessing performance level during the use of social networks for personal learning, how you assess your performance?

During my personal learning through social networks, I can assess my performance instantly, you can see the result of your learning, and you do not need others to assess your performance. Also from your results and marks in the course and assignment, you can judge how you did during personal learning. Also the satisfactory of lecturers about my performance in the course in general could give me indication about how I did during my personal learning through social networks. Another important thing is how you are satisfied about yourself because every one set a goal for herself, as closer you get to this goal you will assess your performance as good.

Q26: How do you plan for your personal learning through social networks independently?

I do not know; it is difficult to limit myself in a fixed plan. Because we actually chose social networks as a learning tool due to its flexible nature, I think plans create restrictions, if this happens we will lose the main feature of social networks.

Q27: Do you learn better when you have complete control over your learning independently?

Sometimes I need the lecturer because I do not want to feel over-confident. I think finally, you need to be assessed by your teacher so you do not wrongly assume you have achieved the course goals. Lecturers could help you to achieve your learning goals and assess your performance properly.

Q28: Do you observe and watch your performance level?

What I learn usually appear in my discussion with my colleagues and the others. For example, if you learn something and later you discuss it with the others, this is I think a good assessment.

Q29: When you use social networks for personal learning, can you judge the value of information and knowledge you find, is it trustable or not?

Well, during my personal learning process, I always have a clear goal I am trying to achieve. This goal helps me to assess the value of information I find. Also reading in more than one resource could help to confirm the accuracy of information. Sometimes you need to read books and articles to confirm your knowledge from the social networks.

Q30: Most of the students who participated in the questionnaire said that they communicating their colleagues through social networks has developed their personal learning. Do you agree with them? What do you think about that?

Yes of course, for example our department, Primary Education, created a WhatsApp group containing all the students. Everything related to the course is discussed in this group such as what the lecturers say in the lectures, discussions about some points, examinations and so on. However, even this is very helpful, I do not think it is the proper personal learning, because other students usually with different interest. This might restrict the discussion in the group or drive it to specific direction.

Q31: Do you receive support and help from your teachers?

I have not received help so far, only in how to use the library, they do not seem to be keen to help or provide support in relation to personal learning. This could be because they teach a large number of students in each session and the large number of sessions they teach. I remember a lecturer who did not have time to finish the topics she was teaching. In this case I do not they will be keen to provide any support to develop our personal learning skills. They have content they aim to deliver before the lecture finish. Very few of them who are active and try to help in developing personal learning skills. Also there is the traditional views at the students among some teachers who think that we cannot learn independently without their teaching in the class and see the university as the only learning context.

Q32: How do social network allow you or help you to communicate with the others to develop your personal learning?

I do not usually contact people directly in social networks, instead, I deal with the information available in social networks. I search about people who have the same interest and talk about what I need and get the information and knowledge.

Q33: So, can you describe yourself as an active user of social networks?

Sometimes, I access them from my phone from time to time and see what is going on, I do not react, discuss or comment, so, I am a receiver more than being interactive. Sometimes I reply when I am very sure of a piece of information or post a video related to the discussion, but this is very rare. Therefore, not the interaction through social networks that develops my personal learning.

Q34: Some students view social networks as tools that provide them with resources and references, what do you think about that?

Yes, social networks are very beneficial in this matter, because it is unlimited source of information and it provides huge amount of information.

Q35: Does your use of social networks helps in your study tasks?

Yes, it helps me a lot, especially before assignments and home works.

Q36: Some students view social networks as tools that provide them with what they need learn personally through communication in groups hold the same interest. What do you think about that?

Groups, especially among colleagues and friends, are not suitable for learning in my opinion, it might be good for entertainment and social purposes, but I do not use it for study purposes. However, I provide some friend with help related to the study in these groups sometimes.

Q37: Do you think the content you find in the social networks are trustable content? Tell me about your opinion in this matter?

It depends on the resource I Am getting the information from. For example, information from some resources need to be tested and confirmed by searching further in other resources. This is because this type of resources is not always accurate or trustable as books and official resources for example. You know books for example go through many process that ensure their accuracy and refined before they are available to readers unlike social networks contents which are open for everyone to contribute to.

Q38: What support you hope to receive that could be beneficial for and could improve your personal learning through social networks?

Introducing a module in the course about personal learning. Also paying more attention to the practical parts of the modules by the university, this would improve personal learning among students. My family supported me by providing devices and internet connection at home, when I need something that support my study, my family provide it to me instantly, but we need someone professional to help us in developing personal learning skills. My family cannot provide more than that because my mother is not highly educated and my father died when I was a child. So, support that I need is academic and professional support more than encouragement or financial support.

Q39: From your personal experience, how could your interaction with the others be beneficial for your planning for further learning?

Maybe when you interact with active and positive people who hold the same interest and successful in the field you are trying to develop in. Communicating people like that would give you a push to learn more and developing yourself.

Q40: In relation to your subject, do you think social networks is beneficial for your subject particularly or important for all subjects equally? Does the subject make a difference in this matter?

No, I think it is important to all university students in all subject areas, it is an open resource that cover all areas of interest.

Q41: finally, do you have any point you would like to add before the end of this interview?

No, Thanks.

Appendix 13: Initial codes

Initial codes

- 1- SN rich resources
- 2- SN provide multiple perspectives
- 3- Communicating active users would encourage PL
- 4- Families help in PL
- 5- Practical aspects in modules would improve PL skills
- 6- Need for module about PL skills
- 7- Lecture traditional views about learning do not support PL
- 8- Large number of students limits lecturer support
- 9- Colleagues groups not always helpful
- 10- Colleagues groups in SN develop PL
- 11- Setting goals helps in assessing SN content
- 12- Lecturers' assessment and help are needed to confirm PL outcomes
- 13- SN is a flexible learning environment
- 14- NO clear plans when using SN for PL
- 15- My lecturer satisfaction about my achievement assess my PL
- 16- My course results assess my PL process
- 17- Instant self-assessment when using SN for PL
- 18- Use of official resources to confirm SN content
- 19- SN content not always trusted
- 20- Lack of SN skills might lead to undesired outcomes
- 21- SN use for PL is interesting
- 22- SN is my friend
- 23- SN for assignments
- 24- In SN I learn in my preferred way
- 25- Diverging nature of SN as a challenge
- 26- Not clear strategy to use SN for PL
- 27- Information student seek in SN
- 28- Lecturers' use of SN for PL is limited
- 29- Some SN not suitable for PL
- 30- Use Google to search all SN and other online resources
- 31- SN easy to use
- 32- Digital age people prefer SN to communicate
- 33- SN is important for PL
- 34- Lack of support in PL
- 35- PL skills need to be developed early
- 36- PL is major source of knowledge
- 37- No support for PL skills
- 38- Use SN for multiple purposes
- 39- SN for further information in topics
- 40- Face-to-face communication important
- 41- Access everyday
- 42- Using the 'Like' function to track topics
- 43- Receiver not interactive
- 44- SN develop personality
- 45- Using SN early stage
- 46- PL important for preparation before lectures
- 47- Lectures not enough
- 48- University student is responsible about learning
- 49- Students desire to learn personally affect its effectiveness
- 50- PL more effective than lectures

Appendix 14: Final codes

Final codes

Students' perceptions of PL:

1. Students desire to learn personally affect its effectiveness
2. PL is major source of knowledge
3. Lecturers' traditional views about learning do not support PL
4. Practical aspects in modules would improve PL skills
5. Need for module about PL skills
6. Lecturers' assessment and help are needed to confirm PL outcomes
7. PL skills need to be developed early
8. PL important for preparation before lectures
9. PL more effective than lectures
10. Students are able to manage their learning personally
11. Some subjects require PL
12. Need for others to monitor ST performance
13. PL build confidence
14. Successful people would encourage students' PL

Responsibilities:

15. University student is responsible about learning
16. Lectures not enough
17. PL more effective than lectures
18. Lecturers' traditional views about learning do not support PL
19. Students depend on lectures
20. Students depend on other students
21. Lecturers are responsible about ST learning

Expectations from university in relation to PL:

22. Practical aspects in modules would improve PL skills
23. Need for module about PL skills
24. Lecturers' traditional views about learning do not support PL
25. Large number of students limits lecturer support
26. Lecturers' assessment and help are needed to confirm PL outcomes
27. Lecturers' use of SN for PL is limited
28. Lack of support in PL
29. No support for PL skills
30. Good support led to good experience

Relationship with SN: (opinions):

31. SN is my friend
32. SN use for PL is interesting
33. Digital age people prefer SN to communicate
34. SN develop personality
35. Using SN early stage
36. SN is important for PL
37. Access everyday
38. Face-to-face communication important
39. SN for future development after graduation
40. Addiction to SN
41. SN motivates students to learn personally
42. SN caused isolation

Purposes of using SN:

43. Use SN for multiple purposes
44. Information student seek in SN

45. SN for assignments
46. SN for further information in topics
47. Lack of practical aspects in lectures
48. SN cover lack of practical aspects (in affordances)
49. SN for entertainment
50. SN for social communication
51. SN for notifications
52. SN for future development after graduation
53. SN to stay up-to-date in the field
54. SN to find Arabic materials
55. Search in books need more efforts
56. SN is most popular
57. SN motivates students to learn personally
58. SN is free comparing to books
59. Gain knowledge in less time and effort by SN
60. Books need more time than SN did
61. SN supports course materials
62. SN supports course materials
63. SN used for learning

Affordances of SN in PL:

64. SN is a flexible learning environment
65. Colleagues groups in SN develop PL
66. In SN I learn in my preferred way
67. Diverging nature of SN as a challenge
68. Some SN not suitable for PL
69. SN easy to use
70. Using the 'Like' function to track topics
71. SN save time
72. SN provide summarized content
73. Good support led to good experience
74. YouTube provide multimedia materials
75. SN for notifications
76. SN cover lack of practical aspects
77. No search engine in Snapchat
78. Gain knowledge in less time and effort by SN
79. Books need more time than SN did
80. Diverging nature of SN as a challenge. not challenge
81. SN helps shy students to communicate
82. Pictures attract learners to learn personally
83. Videos attract learners to learn personally
84. SN makes PL easier

Accessibility in SN:

85. SN rich resources
86. SN provide multiple perspectives
87. Communicating active users would encourage PL
88. Colleagues groups not always helpful
89. Colleagues groups in SN develop PL
90. Use Google to search all SN and other online resources
91. SN easy to use
92. PL is major source of knowledge
93. Receiver not interactive
94. Lecturers' traditional views about learning do not support PL
95. English language facilitate access to more materials
96. Smartphones banned at university
97. Mobile phones facilitated access
98. YouTube easy access
99. Search in books need more efforts

100. SN is free comparing to books

Skills of using SN for PL:

- 101. Lack of SN skills might lead to undesired outcomes
- 102. SN easy to use
- 103. PL skills need to be developed early
- 104. No support for PL skills
- 105. Practical aspects in modules would improve PL skills
- 106. Need for module about PL skills
- 107. Lecturers trained students in SN use for PL
- 108. High level of SN skills facilitates learning process

Strategies of using SN for PL:

- 109. Setting goals helps in assessing SN content
- 110. NO clear plans when using SN for PL
- 111. My lecturer satisfaction about my achievement assess my PL
- 112. My course results assess my PL process
- 113. Instant self-assessment when using SN for PL
- 114. Use of official resources to confirm SN content
- 115. Not clear strategy to use SN for PL
- 116. Use Google to search all SN and other online resources
- 117. Receiver not interactive
- 118. Interactive user
- 119. PL important for preparation before lectures
- 120. Advance planning develops learning outcomes

SN content trustworthiness:

- 121. SN content not always trusted
- 122. Setting goals helps in assessing SN content
- 123. Use of official resources to confirm SN content
- 124. Lecturers' assessment and help are needed to confirm PL outcomes
- 125. Knowledge in book is more trusted
- 126. Difficult to be self-assessment

Challenges face the use of SN for PL:

- 127. Lecturers' traditional views about learning do not support PL
- 128. Large number of students limits lecturer support
- 129. Diverging nature of SN as a challenge
- 130. Lecturers' use of SN for PL is limited
- 131. Foreign lecturers provide more support for PL
- 132. Smartphones banned at university
- 133. Difficult to judge the content
- 134. Life commitments as a challenge
- 135. Lack of confidence
- 136. Contacting males is cultural challenge
- 137. Students depend on other students
- 138. Technical issues
- 139. Lack of time
- 140. University's system affects negatively lecturers' role
- 141. Difficult to be self-assessment
- 142. Diverging nature of SN as a challenge. not challenge
- 143. SN caused isolation

Culture

- 144. Foreign lecturers provide more support for PL
- 145. Lecturers' traditional views about learning do not support PL
- 146. English language facilitate access to more materials

- 147. Smartphones banned at university
- 148. Life commitments as a challenge
- 149. Contacting males is cultural challenge
- 150. University's system affects negatively lecturers' role
- 151. SN to find Arabic materials

Miscellaneous codes:

- 152. Families help in PL
- 153. More groups in WhatsApp provides more chance
- 154. Different use among different cultures
- 155. SN is helpful for whom used correctly
- 156. SN for sessions
- 157. Time management, SN loses time
- 158. Twitter develops learning process personally
- 159. Follow specialists in Twitter
- 160. Retweets help to get further knowledge
- 161. Twitter used for communication
- 162. SNs are useful for all ages
- 163. Ignoring unimportant information
- 164. Ease availability of SNSs
- 165. Uncontrolled groups
- 166. Snapchat used more for entertainment
- 167. SNs are useful for all ages
- 168. Use of WhatsApp to communicate with others
- 169. SN used
- 170. SN for social life
- 171. Most people use SN
- 172. Limit resources in Google

Appendix 15: Final thematic map

	Themes	Codes	Sub-codes	Extract example
1	Students' belief about the role of SNSs	Use of SNSs for entertainment		Sometimes I access social networks for entertainment, (ST 22/ Year 5/ Humanities Colleges)
				I do not know, in these sites, it is difficult to find active users in my subject, minor number of users might discuss topics in my subject. I think these sites now are used for entertainment. (ST 22/ Year 5/ Humanities Colleges)
		SNSs open and rich resources		However, it is good to use it to develop ourselves in any topic and to know more information about it because social networks are open resources of information that everyone around the world could contribute to any topics under discussion. So, you can see unlimited views and opinions about the topics you are interested in, unlike books that are usually hold a single or limited point of view. Social networks are very helpful in this matter. (ST 22/ Year 5/ Humanities Colleges)
				They are very important. Unlike the materials we receive in the university classes, social networks information and materials are very rich. (ST 22/ Year 5/ Humanities Colleges)
		SNSs motivate learners for communication		What made me use it is the communication with people, you know, our context is limited, social networks widened our context and open it with others, we really benefited from it. (ST 24/ Year 5/ Scientific Colleges)
				It allows me to communicate with the outside wider community without changing location and directly engage with it. (ST 18/ Year 3/ Humanities Colleges)
2	ST's perspective about the use of SNSs for PL	SNSs widen knowledge		As I said earlier, it is more flexible and comfortable way of learning and it suits all type of students from different age group. (ST 22/ Year 5/ Humanities Colleges)
		SNSs are additional learning tool for PL		In my case, I started using these sites from an early stage of my life at the beginning of high school. I used to use the internet regularly; websites, forums. I used to read a lot through the internet. So, I think I am an old user of the internet in general. This thing, I think, has developed my personality, my language, my thoughts, it has given me more knowledge and widened my literature. (ST 22/ Year 5/ Humanities Colleges)
		Using SNSs to learn personally is very important		Social networks can facilitate many aspects when learning but they need to be supported by other resources. (ST 22/ Year 5/ Humanities Colleges)
				I think social networks are very important for personal learning (ST 22/ Year 5/ Humanities Colleges)
		SNSs supports student's course materials		I feel that social networks are the ideal source of information related to the course, it is easy to access at anytime and anywhere, I think personal learning can be achieved ideally through social network nowadays (ST 22/ Year 5/ Humanities Colleges)
				I became a dependent on social networks for many tasks that we are asked to do, for example assignments, and some other course works, I use social networks and other online databases to get materials I need, I depend on social networks in many course related works. It is difficult to say it's not important. (ST 22/ Year 5/ Humanities Colleges)

		SNS brings fun to learning		<p>Yes, very much interesting, especially because you have the control over what you want to learn and the process of learning. You do not need to follow the others instructions in how to learn or how to do things. You do it in your way with people you want to listen to them. It is much more interesting than the other ways of learning</p> <p>(ST 22/ Year 5/ Humanities Colleges)</p>
		Freedom of choice in SNSs enhance PL		<p>Social networks are very beneficial in this matter, because it is unlimited source of information and it provides huge amount of information.</p> <p>(ST 22/ Year 5/ Humanities Colleges)</p>
		Face to face communication important		<p>Now it became an essential and you cannot spend a day without it, however I do not depend on it alone on my communications with people, I like face-to-face communications</p> <p>(ST 22/ Year 5/ Humanities Colleges)</p>
		There is no interaction among students via SNSs		<p>No communication, I mean no real interaction except for putting 'Like' on some topics or pictures. There might be new posts, but no comments or discussion.</p> <p>(ST 12/ Year 5/ Humanities Colleges)</p>
3	Easiness	Ease availability of SNSs		<p>Social networks are good in spending free time I have, even if I am reading a book I can access social networks, it is not limited to specific time or place.</p> <p>(ST 22/ Year 5/ Humanities Colleges)</p>
		SNS easy access for knowledge		<p>it is easy to access at anytime and anywhere,</p> <p>(ST 22/ year 5/ humanities colleges)</p>
		ease of finding trustable information		<p>For me, I find what I need easily, I have never felt that the information I need was not there, even when I find inaccurate information I find it from other resources and I find lots of discussion around it.</p> <p>(ST 8/ Year 3/ Scientific Colleges)</p>
		Contacting authors easier in SNSs		<p>For example, when I read medical book, I cannot contact its author or it is difficult to reach him or her, but in the social networks, doctors and professionals provide communication channels for people to contact them and benefit from their knowledge and experience.</p> <p>(ST 1/ Year 2/ Scientific Colleges)</p>
4	The influence of use SNSs on students' learning (negative influence)	challenges might face students when use SNSs	Difficulty in time	<p>Sometimes I find difficulties regarding time that I always have exams and tasks, so I do not have the chance to spend more time in searching about a topic, anything I find about what I am searching for I take it and that is it, no further search.</p> <p>(ST 18/ Year 3/ Humanities Colleges)</p>
			Technical challenges	<p>When I search for something I need sometimes a technical problem happens such as slow internet connection or fake accounts ... these problems interrupt my study.</p> <p>(ST 19/ Year 5/ Scientific Colleges)</p>
			Diverging nature of SNSs as a challenge	<p>The challenge I face is the diverging nature of the social networks when I am tracking a topic. Sometimes you find yourself going away from the topic you are interested in</p> <p>(ST 22/ Year 5/ Humanities Colleges)</p>

	The influence of use SNSs on students' learning (positive influence)		Skills difficulties	Well, now maybe we do not have a clear strategy on how to use social networks to develop personal learning (ST 22/ Year 5/ Humanities Colleges)
		High skills facilitate learning		I think I faced difficulties at the beginning related to the lack of skills. But after I started to learn and search, I became a good user and I know how to use it properly. (ST13/ Year 2/ Humanities Colleges)
		Use of SNSs for PL frees women from cultural restrictions		Yes, because you know women her are limited by some cultural restrictions, we cannot go out easily, sometimes when I need a book I need someone to take me to the library or book store, this is sometimes difficult. But social networks can be a good alternative source of knowledge. (ST 21/ Year 2/ Scientific Colleges)
		videos in SNSs attract students for PL		Some concepts are not explained properly by lecturers, so we try to search for it outside. Because lecturers sometimes speak about something theoretically and we do not receive it in a good way. So we go and watch well-presented videos for example. You take the main idea from the lecturer and search for further information outside. I think watching videos can be a good source of learning. (ST 8/ Year 3/ Scientific Colleges)
		Use of SNSs to download books		Yes it is beneficial, it provides resources and references, and you can download books. You just subscribe on an account and they send the materials by email about topics you are interested in. (ST 26/ Year 5/ Scientific Colleges)
5	Types of SNSs	Instagram	Instagram facilitates access trustable professional specialists	It is actually easy, for example in Instagram, you can find professionals and specialized people who could provide trusted knowledge and information. (ST 1/ year 2/ scientific colleges)
			Videos in Instagram make PL easy	In my study, I use Instagram and Twitter, Twitter is only sometimes, I use Instagram more actually, Because the information in it is very focus and sharp and supported by video and photos. (ST 12/ Year 5/ Humanities Colleges)
			Pictures in Instagram attract students for learning	Instagram, because in Instagram I always search for instructional means and I find good quality pictures that support what I am looking for. (ST 17/ Year 5/ Humanities Colleges)
		Snapchat	Restricting access in snapchat is a feature	In Snapchat for example, it is one of the most interesting application. Because you can choose who to be in contact with, you can get knowledge in an easy and beneficial way from those who you want to contact, it is really exciting. (ST 26/ Year 5/ Scientific Colleges)
			Disadvantages of snapchat	In Snapchat I have added doctors and professional practitioners specialized in food system, I get very valuable knowledge from them. But its problem is that what is posted is presented one time for short time, where you cannot see it again, you cannot access it in the future. (ST 26/ Year 5/ Scientific Colleges)
			It is not suitable for PL	For example, Snapchat and Instagram will not be very useful in this case (ST 22/ Year 5/ Humanities Colleges)
		WhatsApp	It is used for social communication	WhatsApp is different thing, it is for family and friends communication in my opinion. (ST 27/ Year 5/ Scientific Colleges)
			lecturers do not interact	Lecturers in the groups provide limited information, Only for small things. It is more for general instructions. For more explanations and further discussion lecturers require students to visit them in the offices in their weekly hours for this purpose. (ST 18/ Year 3/ Humanities Colleges)

			with WhatsApp groups	
			Using WhatsApp to exchange knowledge with others	It is different among students I think. Some of them might find what they want in Twitter or Snapchat, But WhatsApp allow you to communicate with lecturers and colleagues and discuss topics and share materials in the group, good knowledge exchange. (ST 20/ Year 3/ Scientific Colleges)
			Using WhatsApp group for course materials	Yes of course, for example our department, Primary Education, created a WhatsApp group containing all the students. Everything related to the course is discussed in this group such as what the lecturers say in the lectures, discussions about some points, examinations and so on (ST 22/ Year 5/ Humanities Colleges)
			More groups in WhatsApp provides more chances	I plan to join as many WhatsApp groups as possible so if I miss any piece of information in one group I find it in the other. I do not depend on one group, this is I think what could provide me with the chance to find what I need. (ST 13/ Year 2/ Humanities Colleges)
			Individual contact with colleagues to exchange information	Contacting colleagues individually is better than the group communication. When you need to discuss something you just contact who you think is the right person to contact and exchange information and exchange materials through this channel. (ST 23/ Year 5/ Humanities Colleges)
			Groups in WhatsApp not always helpful	However, even this is very helpful, I do not think it is the proper personal learning, because other students usually with different interest. This might restrict the discussion in the group or drive it to specific direction (ST 22 year 5/ humanities colleges)
		Twitter	Retweets help to get further knowledge	Knowledge spread in Twitter through retweets among colleagues. In this case we get lots of resources of knowledge and we get benefits in our subject. (ST 13/ Year 2/ Humanities)
			It helps to develop PL	It is very helpful in learning languages. I follow Twitter accounts that help in learning English language because my course language is English and my language needs to be improved, so, Twitter is the most useful network that helps me to improve my English because it provides lots of accounts and resources for English language. (ST 13/ Year 3/ Scientific Colleges)
			Number of letters in twitter may limit the learning process	Also Twitter, The allowed space for posting is one hundred and forty four letters, this is very limited and makes it difficult to find enough information about what you are searching for. (ST 15/ Year 5/ Scientific Colleges)
			Privacy	In Twitter, I write more comfortably because no information about me is shown in public, unlike Instagram for example, which depends on posting videos and photos. (ST 14/ Year 4/ Humanities Colleges)

6	Personal learning	PL is more effective than lectures		<p>I believe that personal learning, if the student has the desire to learn, personal learning in this case is an effective type of learning and it is better and more effective than the traditional learning through listening to a lecture because student would have the desire and self-responsibility about learning.</p> <p>(ST 22/ Year 5/ Humanities Colleges)</p>
				<p>I think social networks are more important for getting wider information than lectures.</p> <p>(ST 22/ Year 5/ Humanities Colleges)</p>
		Students desire to learn personally affect its effectiveness		<p>I believe that personal learning, if the student has the desire to learn, personal learning in this case is an effective type of learning and it is better and more effective than the traditional learning</p> <p>(ST 22/ Year 5/ Humanities Colleges)</p>
		Different ways of PL		<p>I there is something that I need to learn more, I ask the lecturer to explain it to me, if I need further information I access social networks and try to improve myself independently. If still need help I try to find private teacher at home.</p> <p>(ST 25/ Year 4/ Scientific Colleges)</p>
		Some subjects require PL		<p>Social networks for me is a very important thing, it improves me considerably, especially that I am not a good painter, and this subject needs more independent development.</p> <p>(ST 11/ Year 5/ Humanities Colleges)</p>
		PL builds confidence		<p>Personal learning could help student to feel more confident which lead to be more active learner.</p> <p>(ST 1/ Year 2/ Scientific Colleges)</p>
7	Learning process	Planning	Time management	<p>I use timetables, in my study I manage my time, and I use notes on these timetables about what I have done and what I have achieved.</p> <p>(ST 13/ Year 2/ Humanities Colleges)</p>
			Planning makes learning process more restricted	<p>I do not know; it is difficult to limit myself in a fixed plan. Because we actually chose social networks as a learning tool due to its flexible nature, I think plans create restrictions, if this happens we will lose the main feature of social networks.</p> <p>(ST 22/ Year 5/ Humanities Colleges)</p>
			Students are able to manage their learning personally	<p>I can manage my time effectively, so there is times for myself and times for personal learning on these sites.</p> <p>(ST 20/ Year 3/ Scientific Colleges)</p>
			Planning for learning supports learning process	<p>I started to plan in advance in my study so I can prepare myself well in my field. If I need any information I plan very well in terms of time and what strategy I should use and what resources I will find. I always plan to develop my learning independently, it really helps me to improve my study quality.</p> <p>(ST 24/ Year 3/ Scientific Colleges)</p>
		Monitoring	Need for others to monitor their performance	<p>Because I am in my first year, I think I have long time to develop my learning and research skills. I need someone more experience to help me and supervise my performance, there is a need for someone who can observe my level, I cannot be independent at this stage.</p> <p>(ST 3/ Year 1/ Humanities Colleges)</p>
			Student is able to monitor her performance	<p>Yes I have the ability. For example I do a piece of research and then I gain new knowledge and skills. And in the following research I notice my improvement.</p> <p>(ST 18/ Year 3/ Humanities Colleges)</p>
			Lack of thinking about monitoring my level	<p>I do not manage my time effectively, I do not assess myself and think about what I need to improve and how to improve.</p> <p>(ST 27/ Year 5/ Scientific Colleges)</p>

		Assessment	Self-assessment when using SNSs for PL	<p>What I learn usually appear in my discussion with my colleagues and the others. For example, if you learn something and later you discuss it with the others, this is I think a good assessment</p> <p>(ST 22/ Year 5/ Humanities Colleges)</p>
			My performance can be assessed through lecturer satisfaction	<p>Also from your results and marks in the course and assignment, you can judge how you did during personal learning.</p> <p>(ST 22/ Year 5/ Humanities Colleges)</p>
			Setting goals helps in assessing SNSs content	<p>Well, during my personal learning process, I always have a clear goal I am trying to achieve. This goal helps me to assess the value of information I find</p> <p>(ST 22/ Year 5/ Humanities Colleges)</p>
			Lecturers assessment and help are needed to confirm PL outcomes	<p>Sometimes I need the lecturer because I do not want to feel over-confident. I think finally, you need to be assessed by your teacher so you do not wrongly assume you have achieved the course goals. Lecturers could help you to achieve your learning goals and assess your performance properly</p> <p>(ST 22/ Year 5/ Humanities Colleges)</p>
8	Contextual factor	The reasons for increase students' responsibility	Non-native speaker leads students to learn personally	<p>If the lecturer is native Arabic speaker we do not have a problem, but if she is non-native speaker, we face some difficulties in understanding some concepts. So when I go home I try to access social networks and learn independently about this topic. For example we have a lecturer from Indonesia whose English is not clear, sometimes we do not understand, when I get home I search in YouTube and find resources to understand.</p> <p>(ST 20/ Year 3/ Scientific Colleges)</p>
			The style of lecturer leads students to learn personally	<p>It is more open for discussion than in the lectures where the time is limited and the lecturers are following their own strategy of teaching. I think social networks are more important for getting wider information than lectures</p> <p>(ST 22/ Year 5/ Humanities Colleges)</p>
		Classes create an atmosphere of boredom		<p>In the class, there is no enough time for discussion and it is boring, when the lecture finish we are not willing to discuss more after two hours of the lesson. So social networks are a good context to further discussion about the subject.</p> <p>(Year 4/ Humanities Colleges)</p>
		Lecturers' role	lecturer and student are both responsible about learning	<p>Both need to take part in the learning process, lecturer guide students and provide them the essential knowledge and the student need to go further and be responsible about developing herself.</p> <p>(ST 14/ Year 5/ Humanities Colleges)</p>
			Lecturers do not direct students correctly	<p>We I go to some lecturers, they do not guide us effectively, they give information, but not in the right direction.</p> <p>(ST 12/ Year 5/ Humanities Colleges)</p>
			lecturers encourage students to use SNSs	<p>After lectures finish, lecturers provide us with links and social network accounts and encourage us to take advantages of these resources.</p> <p>(ST 16/ Year 3/ Scientific Colleges)</p>
			University's system may affect negatively lecturers' role	<p>Sometimes the university rules are obstacles. Some doctors hesitate to do things to support our learning that might be against the rules, especially foreigner doctors.</p> <p>(ST 8/ Year 3/ Scientific Colleges)</p>

9	Reasons of use SNSs	I used it because others use it		I use these sites because most people I know are in these sites. (ST 24/ Year 5/ Scientific Colleges)
		I used it because lecturers use them		Not very active, they do not usually mention it unless a lecturer has an account in Twitter for example, she sometimes gives it to us and post course related materials and some information about the lectures time and locations, very limited use. Some social networks, I have never met lecturers who use it for course related use such as Snapchat (ST 22/ Year 5/ Humanities Colleges)
10	Student requirements	Students want that there is an official account of university System		I hope university could provide a communication platform for communication between students and lecturers more the Blackboard system, we need a simple platform where we communicate and exchange materials. (ST 11/ Year 5/ Humanities Colleges)
		Students need self-learning material within the curriculum		Introducing a module in the course about personal learning. Also paying more attention to the practical parts of the modules by the university, this would improve personal learning among students (ST 22/ Year 5/ Humanities Colleges)

Appendix 16: Codes frequencies and definitions

	Code	Coded segments	Documents (number of students)	Code definition
1	Use of SNSs for entertainment	11	10	Refers to the students' view that SNSs are used more for entertainment rather than other purposes.
2	SNSs open and rich resources	4	2	Refers to the students' view about SNSs as rich resources of information that could support their study.
3	SNSs motivate learners for communication	25	8	Refers to the students' view that SNSs facilitate communication with others which motivates them to use it.
4	SNSs are useful for all ages	4	4	Refers to the students' view that SNSs are accessed by and useful for people from different age groups which allow reaching more people.
5	SNSs widen knowledge	18	13	Refers to the students' view that SNSs could widen their literature and knowledge through accessing materials and communicating others.
6	SNSs are additional learning tool for PL	15	8	Refers to the students' view that SNSs are good tools for PL but they need to combine with other tools.
7	Using SNSs to learn personally is very important	27	16	Refers to the students' view that SNSs are ideal tools for PL.
8	SNSs supports student's course materials	31	21	Refers to the students' view about the importance of SNSs to support their university course activities.
9	SNS brings fun to learning	30	23	Refers to the students' view that SNSs are interesting tool of learning.
10	Freedom of choice in SNSs enhance PL	7	4	Refers to the students' view that their control over the choices of resources in SNSs enhance their PL.
11	Face to face communication important	6	5	Refers to the students' view that although communication through SNSs is important, face-to-face communication is also important.
12	There is no interaction among students via SNSs	5	5	Refers to the students' view that the interaction between students on SNSs is not effective.
13	Ease availability of SNSs	11	7	Refers to the students' view that the accessibility in SNSs and the availability of materials are important features.
14	SNS easy access for knowledge	32	23	Refers to the students' view about the ease of accessibility in SNSs.
15	ease of finding trustable information	2	2	Refers to the students' view that they find what they need in the SNSs and they trust its content.

16	Contacting authors easier in SNSs	3	2	Refers to the students' view that in SNSs it is easy to contact authors unlike other published materials such as books.
17	Difficulty in time	8	8	Refers to the students' view that being busy with other course tasks hinders their use of SNSs for learning.
18	Technical challenges	5	5	Refers to the students' view about technical challenges and issues that they face when using SNSs for learning.
19	Diverging nature of SNSs as a challenge	1	1	Refers to the students' view about a challenge when using SNSs for learning where they lose tracking the actual point they are trying to learn about and move to unrelated topics.
20	Skills difficulties	21	16	Refers to the students' view about the lack of skills of using SNSs for learning.
21	High skills facilitate learning	11	7	Refers to the students' view that gaining good skills for using SNSs for learning facilitate its process.
22	Use of SNSs for PL frees women from cultural restrictions	1	1	Refers to the students' view that SNSs are useful tools that allow female users in the conservative community of Saudi Arabia to communicate freely with male users that is difficult to do face-to-face.
23	videos in SNSs attract students for PL	8	7	Refers to the students' interest in videos as a feature that is provided by SNSs posts.
24	Use of SNSs to download books	11	10	Refers to the students' view about the role of SNSs in finding and downloading books.
25	Instagram facilitates access trustable professional specialists	4	4	Refers to the students' view about their use for Instagram as a useful SNS to find and contact professional specialist related to their subjects.
26	Videos in Instagram make PL easy	7	6	Refers to the students' view about Instagram as a useful learning tool because of videos clips feature of this SNS.
27	Pictures in Instagram attract students for learning	7	4	Refers to the students' interest in pictures in Instagram for learning.
28	Restricting access in snapchat is a feature	6	4	Refers to the students' view about the privacy in SnapChat where users need permission to access accounts.
29	Disadvantages of snapchat	10	7	Refers to the students' view about the technical disadvantages of SnapChat.
30	It is not suitable for PL	14	11	Refers to the students' view that SnapChat is not suitable for PL, rather, it is good for social communication.
31	It is used for social communication	18	14	Refers to the students' view that WhatsApp is suitable more for social communication.

32	lecturers do not interact with WhatsApp groups	3	3	Refers to the students' view about the lack interaction from their lecturers in WhatsApp groups
33	Using WhatsApp to exchange knowledge with others	6	5	Refers to the students' view about the role of WhatsApp in exchanging knowledge with the others.
34	Using WhatsApp group for course materials	18	14	Refers to the students' use of WhatsApp group to get information and materials about their course from colleagues and lecturers.
35	More groups in WhatsApp provides more chances	4	4	Refers to the students' view that joining more than one group related to the study subject provide more opportunities to receive useful information and materials.
36	Individual contact with colleagues to exchange information	4	2	Refers to the students' view that contacting people individually in more useful than groups.
37	Groups in WhatsApp not always helpful	11	7	Refers to the students' view that WhatsApp group might be unuseful for learning.
38	Retweets help to get further knowledge	8	8	Refers to the students' view about the usefulness of the retweet feature in Twitter.
39	It helps to develop PL	9	7	Refers to the students' view that Twitter is a useful tool for PL.
40	Number of letters in twitter may limit the learning process	3	2	Refers to the students' view about the limitation of the number of letters in Twitter posts that can be a disadvantage.
41	Privacy in Twitter	4	1	Refers to the students' view about privacy in Twitter where their personal information is not accessed by public.
42	PL is more effective than lectures	9	6	Refers to the students' view about the importance of PL for university students.
43	Students desire to learn personally affect its effectiveness	5	3	Refers to the students' view that the students desire and motivation are important aspects when learning personally.
44	Different ways of PL	13	10	Refers to the students' view about different strategies of PL.
45	Some subjects require PL	6	3	Refers to the students' view that some subjects require student to learn personally due to difficulties of loads of tasks.
46	PL builds confidence	4	3	Refers to the students' view that PL could help students to be more confident.
47	Time management	8	6	Refers to the students' view about time management when learning personally through SNSs.

48	Planning makes learning process more restricted	2	2	Refers to the students' view that following fixed study plan through SNSs could negatively affect its open access feature.
49	Students are able to manage their learning personally	17	14	Refers to the students' view about their ability to learn personally and manage their learning activities.
50	Planning for learning supports learning process	17	14	Refers to the students' view about the importance of planning that makes learning process more effective.
51	Need for others to monitor their performance	3	2	Refers to the students' needs for others like lecturers to help them to manage their learning process.
52	Student is able to monitor her performance	14	11	Refers to the students' views about their ability to manage their PL independently.
53	Lack of thinking about monitoring my level	1	1	Refers to the students' view that they do not think how to monitor their own PL.
54	Self-assessment when using SNSs for PL	26	19	Refers to the students' ability to assess their progress when learning through SNSs.
55	My performance can be assessed through lecturer satisfaction	3	3	Refers to the students' strategy of assessing their progress through their lecturer's satisfaction.
56	Setting goals helps in assessing SNSs content	1	1	Refers to the students' view about the importance of setting goals in assessing the SNSs content.
57	Lecturers assessment and help are needed to confirm PL outcomes	1	1	Refers to the students' view about the importance of lecturers' assessment for confirming their PL outcomes.
58	Non-native speaker leads students to learn personally	2	2	Refers to the students' view that being taught by non-native speaker's lecturers leads them to learn personally to overcome difficulties.
59	The style of lecturer leads students to learn personally	14	8	Refers to the students' view that unsuitable teaching style that their lecturers adopt leads them to learn personally.
60	Classes create an atmosphere of boredom	6	5	Refers to the students' view that they learn personally because classes are boring.
61	lecturer and student are both responsible about learning	7	7	Refers to the students' view that both students and lecturers are responsible about the students' learning.

62	Lecturers do not direct students correctly	2	2	Refers to the students' view about the lack of guidance from lecturers when learning personally.
63	lecturers encourage students to use SNSs	3	3	Refers to the students' view that lecturers encourage students to use SNSs for PL.
64	University's system may affect negatively lecturers' role	3	3	Refers to the students' view about the negative effect on the lecturers' role in guiding students in PL.
65	I used it because others use it	14	10	Refers to the students' view that they use SNSs because other people use them.
66	I used it because lecturers use them	7	7	Refers to the students' view that they use SNSs because their lecturers use them.
67	Students want that there is an official account of university System	5	3	Refers to the students' expectations from the university to establish accounts in SNSs to help them to perform PL.
68	Students need self-learning material within the curriculum	2	2	Refers to the students' expectations to receive materials within the course that help them in their PL.